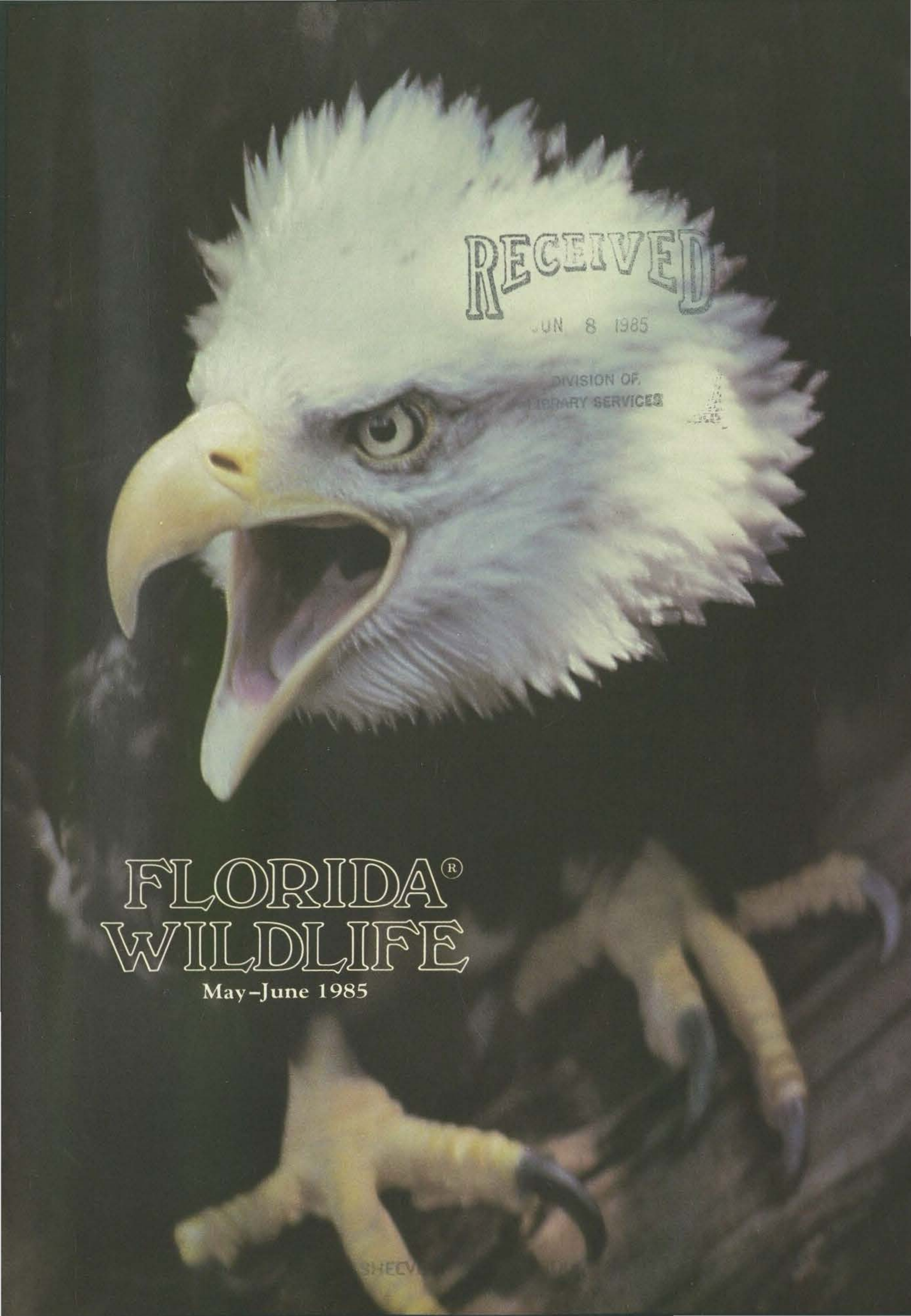

FLORIDA® WILDLIFE

May–June 1985

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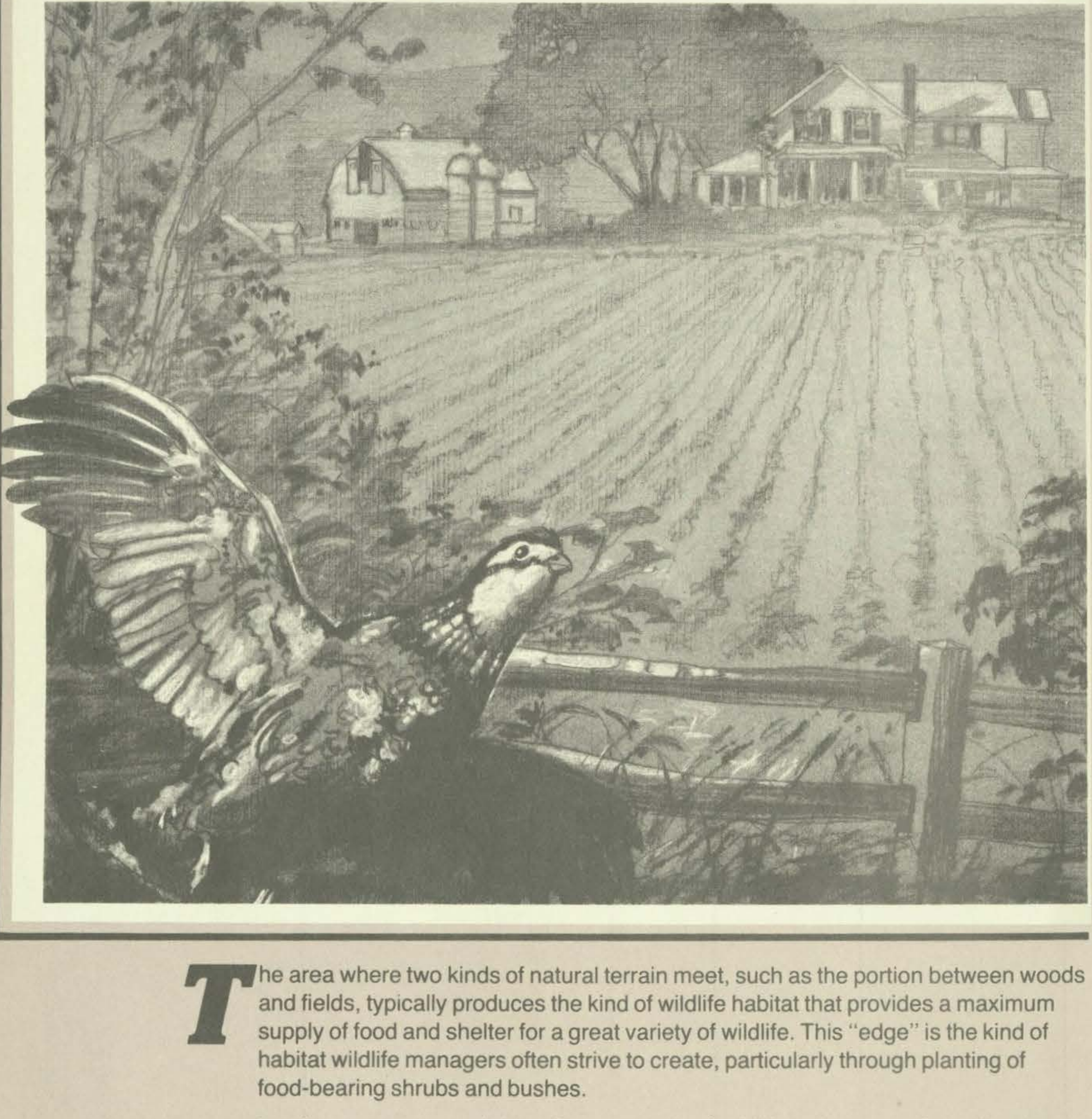
How to help give wildlife an extra "edge"



The area where two kinds of natural terrain meet, such as the portion between woods and fields, typically produces the kind of wildlife habitat that provides a maximum supply of food and shelter for a great variety of wildlife. This "edge" is the kind of habitat wildlife managers often strive to create, particularly through planting of food-bearing shrubs and bushes.

Landowners can greatly benefit many kinds of wildlife in their area, from deer to songbirds, by similar planting or by simply not mowing or cutting down brushy edges where they already exist.

For years, private sportsmen's groups throughout America have been improving habitat through such plantings and other habitat restoration programs.

Such efforts have helped to develop and upgrade millions of acres of habitat — the food, water, living space and shelter that all species need in order to survive.

NSSF
National Shooting Sports Foundation
P.O. Box 1075
Riverside, Conn. 06878

FLORIDA® WILDLIFE

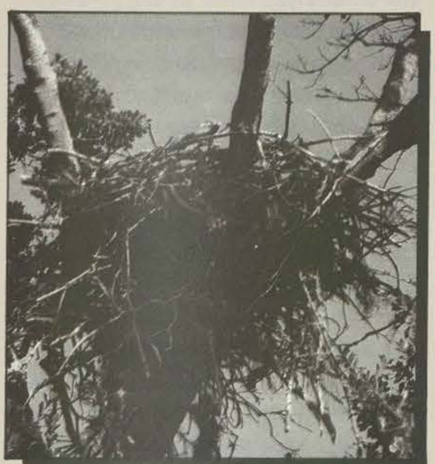
Dedicated to the appreciation and enjoyment of our wildlife heritage, and to a fuller understanding of efforts directed toward the protection, restoration, enhancement and wise use of our natural resources.

Florida Game & Fresh
Water Fish Commission
Publisher

Volume 39, Number 3 May-June 1985

In this issue

The Outdoor Classroom, page 14.



Bald Eagle Experiment, page 22.

2 **Did you Get Any Bugs?** By John and William Smith
4 **A Hitch in Time...** By John Waters Jr.
6 **Florida's Changing Environment,** By John Waters Jr.
11 **Jack Be Nimble,** By Dick Dale
13 **Four Bird Dog Breeds,** By Carolee Boyles-Sprenkel
14 **The Outdoor Classroom,** By Jane T. Adams
18 **Guy LaBree, Artist**
22 **An Experiment With Eagles,** By Henry Cabbage
26 **Preserving the Ancient Craft of the Birch Bark Canoe,** By Dan R. Stengle
30 **The Florida Dugout Canoe,** By John Roberge
32 **Saving the Sea Turtles,** By Robert W. Loftin
36 **Delicate Balance—The Roseate Spoonbill,** By James A. Rodgers
37 **Handmaking the Old Favorites,** By W. Horace Carter
41 **Choosing The Best Rod,** By Farriss Samarrai
42 **A Stick You Can Live With,** By Myra Hinson Jeffres

DEPARTMENTS

It's The Law -44- Hunter Education News -45-
Conservation Update -46- Floridana -49-

THE COVERS

The bald eagle, our national bird, is holding its own in Florida. Our front cover shows one of these majestic raptors in a photograph by Jane T. Adams. The back cover, a scene on Florida's Myakka River, was taken by Lynn M. Stone.

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Printing
Rose Printing Company Inc.

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FLORIDA WILDLIFE (ISSN 0015-4369) is published bimonthly by the Florida Game and Fresh Water Fish Commission, 620 South Meridian, Tallahassee, FL 32301. Single copy price-$1.25, including state sales tax. Subscription rates, 1 year, $7.00; 3 years, $20.00. Second-class postage paid at Tallahassee, Florida. Post Office Publication Number 202440.

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HOW TO SUBMIT

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Did You Get Any Bugs?

There is no cure for the Pine Island chiggers.

By John and William Smith

Last fall, good friend Don Cox and I were busting brush and palmettoes on Pine Island at Lake George in a vain search for Florida razorbacks. We hunted diligently but, by the end of the day, we had killed nothing more than the afternoon.

We were loading gear into the boat in preparation for our return to Salt Springs when Don asked, "Did you get any bugs?"

"Huh?" I replied, preoccupied with the task at hand.

"Did you get any bugs?" he repeated. "You know, red bugs—chiggers. Did you get any?"

With years of experience in Florida woods, I was certainly no stranger to these tiny, almost invisible pesky fleas. The tell-tale symptoms are not usually manifest until some hours later, so I answered with an air of authority, "It's a little too soon to tell. Probably won't know 'til tonight."

"Ha!" Don laughed. "Not at Pine Island!"

Now, Don's no greenhorn either. Furthermore, he had been here many times and this was only my first trip. Maybe he knew something I didn't, I thought. Since the subject had come up, I did notice I had been itching a little around my ankles and legs.

By the time we reached the boat ramp at Salt Springs, all doubts about having them were gone.

"Let's move it!" I shouted to Don as we trailered the boat. "I'm gonna need some relief from these things!" The situation definitely called for the privacy of home.

Unfortunately, though, we still had to check out at the wildlife management station before leaving. So, while Don went into the station office to take care of this responsibility, I waited impatiently outside and scratched as best I could. My contortions soon caught the attention of a couple of old-timers sitting out front. One of them, scrutinizing me over the rims of his wire-framed glasses, obviously thought I was afflicted.

"You okay, son?" he asked with curious concern.

"Yes sir," I replied. "I think so anyway. Just a bad case of chiggers I picked up this afternoon."

"You must have been over on Pine Island," he mused.

"As a matter of fact, I was."

"Those Pine Island chiggers work fast, don't they?" he chuckled.

"They most surely do!" I declared, trying to scratch a remote place between my shoulder blades that wouldn't be denied. "What's good for 'em?"

"Ain't no cure for Pine Island chiggers, son," he answered authoritatively. "Just have to suffer through." He paused, then added with a professorial tone, "I'll give you some advice, though—don't scratch 'em. Only makes 'em worse!"

For the first time in the brief conversation our eyes met. Now I have a respectful attitude toward senior citizens; they're valuable members of society. In fact, I hope some day to be one. But I concluded the wisdom that usually attends age had somehow eluded this gentleman. With a strained smile, I thanked him for his concern. About then, Don came back.

"Let's head for town!" he yelled as he too was itching wildly.

The half-hour drive home to Ocala seemed endless. In my mind, I reviewed every chigger remedy known to medical science, as well as a few that aren't—the perennial home remedies forever recommended by friends. None had ever worked on ordinary chiggers, so what value could they be against these Pine Island monsters?

When we reached my house, Don slowed down just long enough for me to jump from the car. "Good luck with the bugs!" he shouted as he sped away. His hasty departure told me he had problems of his own.

It looked like I was doing a rumba as I scratched my way to the front porch. My wife, Billie Kay, opened the door and stared at my gyrations. She was clearly impressed. "Boy, you've got 'em bad this time!" she said.

Billie Kay has come to expect chiggers and such after my outdoor escapades. I tried to explain that these weren't ordinary red bugs this time, but *Pine Island Superchiggers.* The distinction somehow escaped her.

I decided to call my friend, John. As director of a youth camp in the Ocala National Forest, John's probably seen more chiggeritis than anyone I know. Maybe he could help, I thought desperately.

"Pine Island chiggers? Heaven help you!" John's words echoed ominously through the telephone. This was not quite the reassurance I had been hoping for.

"Pine Island's about the only place left with a pure strain of those native Florida chiggers," he explained. "Some claim they're the worst known to civilized man. Years ago, we had a bunch of 'em pass through our youth camp. Talk about puttin' a bunch of kids on the move! Why, we're still trying to

"Boy, you've got 'em bad this time!" she said when I opened the door.

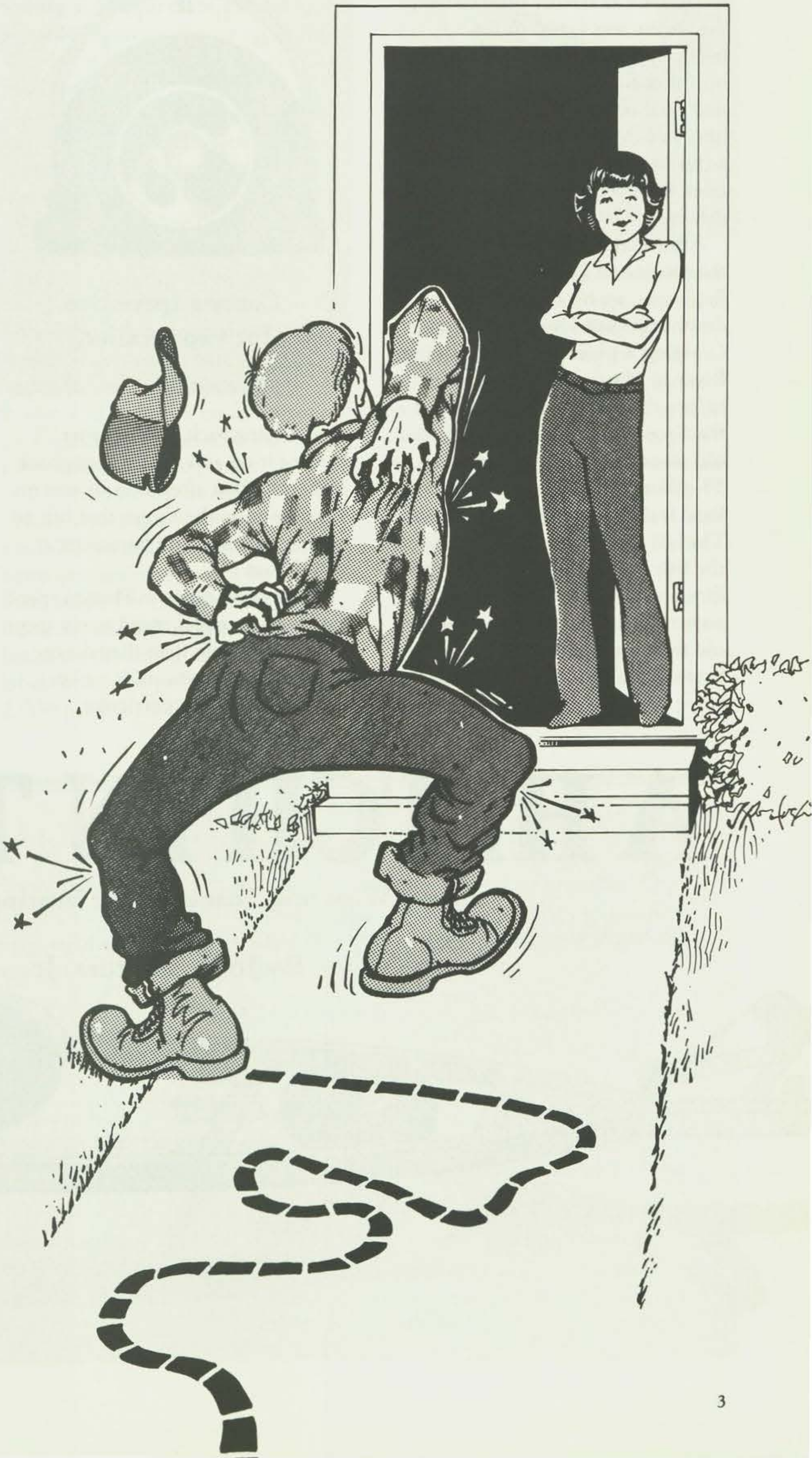
find one or two of those young 'uns. No, don't know of any cure for 'em," he summarized. "Your best bet's to get a big terry cloth bath towel; wet it, then let it dry real slow out in the sun 'til the terry cloth is coarse. Makes a mighty dandy chigger scratcher. And for those hard-to-reach places, I like to grab mine and seesaw it back and forth."

Thanking him, I hung up the telephone, thinking the dried towel was a good idea. The only problem was all that towel drying required time I didn't have. I needed fast relief. I was getting desperate!

It was night by then and my infestation was peaking. I mindlessly grabbed a medical encyclopedia from the bookcase and frantically fumbled through the pages until I came to the heading "Chiggers." I must have been hallucinating when I read the words, "No known cure for Pine Island chiggers." At any rate, I fell asleep on the floor in exhaustion and awoke the next morning half expecting to see flowers and candles. But, I was alive.

Now maybe it was only my imagination, but somehow the chiggers didn't seem quite so bad by morning. Fact is, as the days went by, I found it was actually possible to outlive them, although sometimes I prayed I wouldn't.

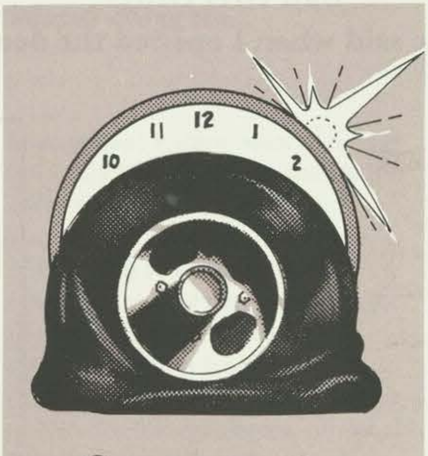
Maybe one day, with proper research in the field, they'll even find a remedy. But until that time, folks around Salt Springs will tell you just what they told me, "There ain't no cure for Pine Island chiggers!" ☐



It was 17 years ago, but I'll never forget one day Grandpa Williams and I pulled out of the small, two-traffic-light town of Hawthorne for a day of fishing on the scenic Oklawaha River. My recently purchased 16-foot runabout was freshly refurbished, the engine was tuned to run perfectly and a brand new trailer was hitched up, ready to go. It was that time of year when the redbellies bite, and the pleasures of tying up to a tree limb on a shady bend of the river were beckoning us to go fishing.

After making sure everything was shipshape and Bristol fashion one final time, we hit the road. Our destination was Orange Springs Crossing, a place on the Oklawaha River in Marion County where, before the partial construction of the Cross Florida Barge Canal, an old wooden platform floating on 55-gallon barrels was used to ferry local traffic across the swift stream. The last three miles of the road to the fish camp at the ferry site were dirt, and it was here where something in the sandy ruts of the old wagon road busted one of the tires on the boat trailer. We had no spare tire.

We didn't make it fishing that day. What we spent the day doing was unhitching the trailer, repacking all the gear into the car, driving about 70 miles to purchase another tire, driving back to the trailer, putting it on and finally going back home late that afternoon. It was my first lesson in the things that can go wrong trailering and launching a small boat.



Carry a spare tire for your trailer.

Most small boats in Florida spend far more time and travel many more miles on trailers than they do on water. For this reason, it makes good sense to pay particular attention to your boat trailer. It's simple enough to do the little things that need to be done and it might save your day.

Carry a spare tire and wheel, ready for the unexpected blow-out. Along with the spare, you'll need the correctly sized wrench to remove the wheel and a jack that will work. Try the jack you might have to use. Sometimes the modern automotive jack in the car or truck will work, other times it may scratch the boat. Probably the best kinds of jack for boat trailers are the telescoping scissors type or a hydraulic jack. Leave your trailer hitched when jacking to keep it stable.

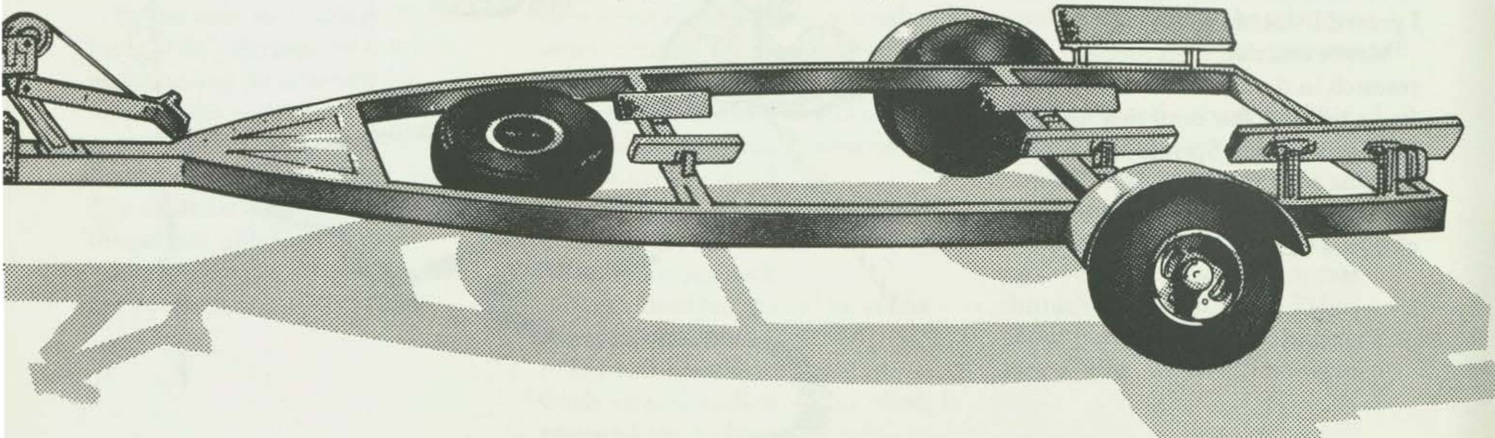
Wheel bearings also need periodic attention—depending on how often you roll your trailer into the water. Some trailer wheel bearings have a grease fitting which makes it easy to add lubricant and some do not. In either case, yearly removal of the bearings, thorough cleaning of the parts with a paint brush and kerosene and regreasing with a high grade, waterproof grease can prevent a wheel bearing burning out at the wrong time.

"Packing" a wheel bearing refers to the forcing of grease into and around all the rollers of the bearing. Nothing works better than your

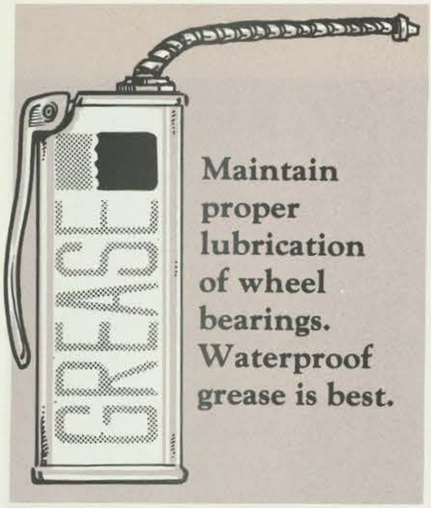
A HITCH IN TIME...

Saves Wear and Tear on Your Boating Pleasure.

By John Waters, Jr.



fingers. After the cleaned bearing is packed and the inside of the hub and spindle has been cleaned, they can be reassembled. Here, a little care is necessary to ensure the bearing is tight enough, but not so tight it will seize. Tightening the nut that holds the wheel to the spindle on the axle controls this. It should be tightened until the wheel starts to bind a little as you turn it by hand, then loosened approximately one-quarter turn. Lock the nut with a cotter pin.

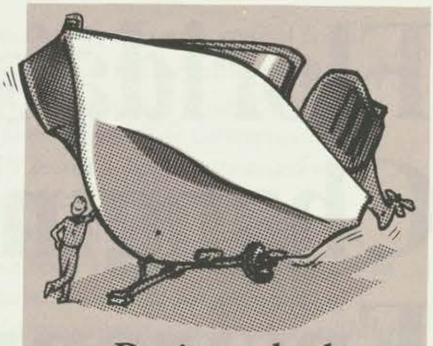


Maintain proper lubrication of wheel bearings. Waterproof grease is best.

The trailer should snugly fit the boat it will be carrying. The fit should be checked annually and rollers and padded skids adjusted to provide an evenly distributed support of the boat's bottom hull along its entire length. The key to keeping these parts in adjustment is properly tightening the bolts that hold them in place. Use a pull bar and socket to tighten the *nut* while using a box-end wrench to hold the *bolt*. Bolts should be replaced if they are rusty. Grease them all over with waterproof grease before replacing and this will help them stay clean and strong.

Other areas on the trailer where rust is spotted can be cleaned and repainted. A little maintenance here goes a long way. For removing rust, use a wire brush—either by hand or on a power drill. No longer than one day should pass before you paint freshly cleaned metal. Oxidation begins immediately after fresh, clean metal is exposed to air, so the sooner it is painted the better. Use a primer made for use on metal and a finish coat that is compatible with the primer.

When traveling, be sure you are not overloading your trailer. If you tend to load the boat with a lot of extra gear and you have a big motor, there might be too much weight. Look for and follow the weight limits on the trailer manufacturer's label. If you are pulling more than 2,000 pounds, including the weight of the trailer itself, you need a trailer brake system. To pull this much weight without brakes on the trailer can be very dangerous.



Don't overload your boat trailer.

Trailers for heavier boats should be of the four-wheel type instead of the two-wheel type. This is important for keeping the load balanced in the event a tire blows out. A blow-out at highway speeds with a lot of weight on the rear of your vehicle can cause you to loose control.

Ideally, the best way to deal with the spare tire problem is to have a trailer with wheels and tires the same size as those on the vehicle you pull the trailer with; however, many trailers for small boats use a wheel as small as 12-inch radius and this may not be practical for you. ☐

For safe and enjoyable boating by trailer, follow these safety tips

- Be sure lug nuts on trailer wheels are tight.
- Check the safety chains and the ball hitch for correct hook up. Leave some slack in the chains, but don't allow them to drag the road.
- If you have electric brakes on the trailer, test them.
- Be sure the winch is secured and all tie-downs are tight.
- Check your side-view mirrors for good visibility.

At the launch:

- Know your launch site and any hazards (such as underwater objects) that may be present.
- Don't forget to plug the boat's drain hole and tilt the motor up.
- Use two people to launch if possible. One should hold one or two lines secured to the boat and assist with the boat sliding straight back into the water.
- Don't back up too far. Keep the pull vehicle's rear tires out of the water, if possible.
- Take enough time to do the job safely. The best angle is straight back to the launching site. If this is not possible, try to keep the boat where it can be seen in the driver's side-view mirror.
- Be courteous to others using the launch. Get your boat in the water, then pull away so others can launch their boats.

Florida's Changing Environment

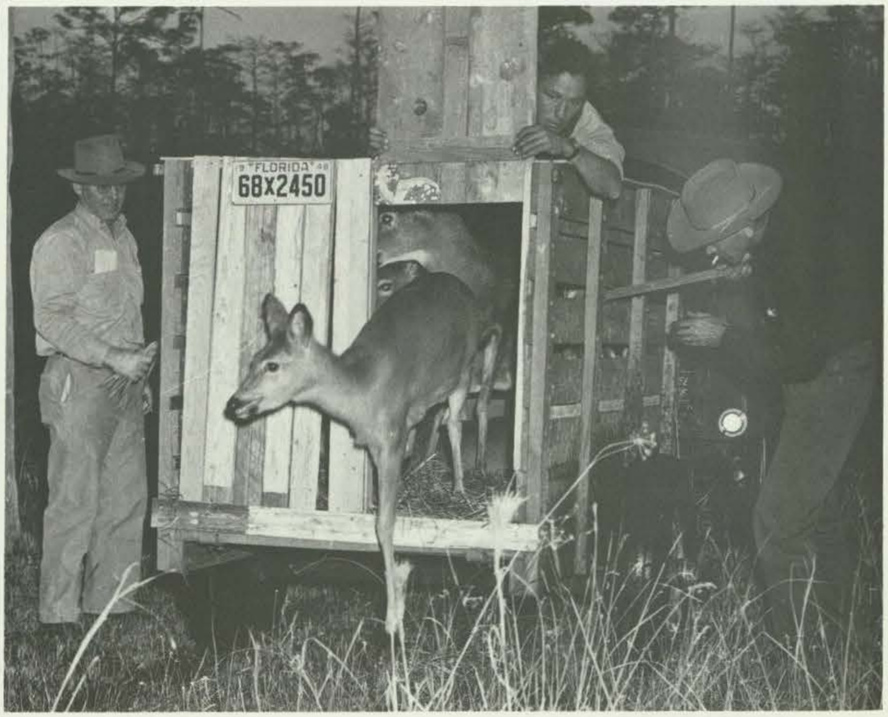
The views of two long-time conservationists who have seen and been a part of those changes.

By John Waters Jr.

Wm. Greer-Photograph

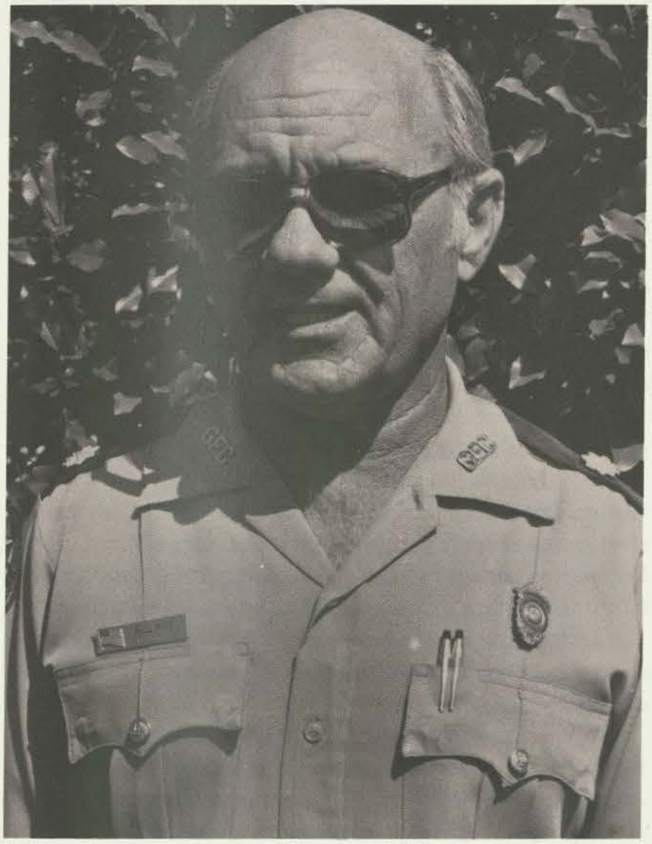
Fred W. Stanberry

"My first job included work in restoration of depleted deer and turkey populations."



GFC Photograph

Stocking white-tail deer in a wildlife management area, about 1948.


Vinard Hitt-Photograph

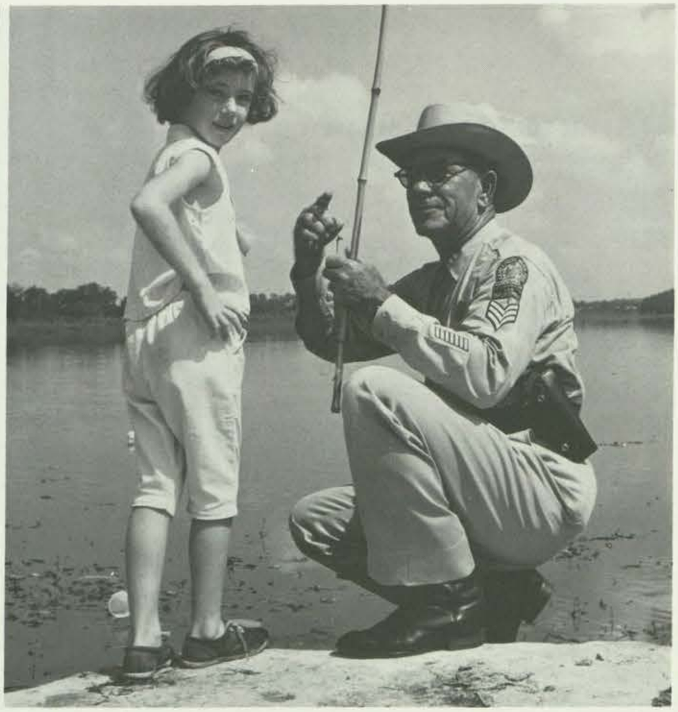
William "Bill" H. King

This spring, two men retired from the Florida Game and Fresh Water Fish Commission, after serving in the field of wildlife conservation for 36 and 22 years respectively. During their decades of work conserving Florida's public lands, wildlife and freshwater fish, they have witnessed changes in wildlife management, demands for new uses of public lands and in the overall awareness of wildlife both within the Commission and by the citizenry.

When Fred Stanberry first joined the Commission in 1949, he was hired as a biologist to work in the restoration of deer and turkey to areas of Florida where these game species were either nonexistant or very low in numbers.

"At that time," he recalls, "there was a mistaken belief that the state's cattle herds were being infected by cattle tick fever because the native deer were carriers of this disease. The Livestock Sanitary Board, as a result of this belief, was supporting the killing of deer to protect cattle. ▷

"Now, this agency is managing wildlife resources for all the people--not just those who hunt and fish."


GFC Photograph

In 1964, when this scene was photographed, there was more emphasis on consumptive uses of wildlife.

"In some counties," Stanberry explains, "this killing had reduced deer populations to extremely low levels. My first job included working with restoring the deer in these counties."

During that time in history, the Commission's funding came from revenues collected from hunting, fishing and other permit fees, from arrest fees, Pittman-Robertson funds (federal tax on guns and ammunitions) and a few other minor sources. As a result, the emphasis on where the money was spent was on game animals and freshwater game fish. License and permit fees and these first main activities of the Commission were established by the Florida Constitution. During the years since then, increasingly larger amounts of funding have come from the state's general appropriations, and the activities of the Commission have, as a result, been considerably broadened in scope.

William "Bill" King has seen this change during his service, which began in 1963 as a wildlife officer. He has observed, "a significant change in the responsibilities of the Commission from an emphasis on hunting and freshwater fishing to a more diversified responsibility for all aspects of wildlife."

King says the direct result of the Legislature providing additional funding to the Commission is that "Now, this agency is managing wildlife resources for all the people—not just those who hunt and fish."

Stanberry points out that it was "sportsmen who first spent money to be used directly in support of wildlife," during the earlier years.

"That's why most of our work then was with deer and turkey populations, and with freshwater game fish. Since then, however, the public has made money available to protect other wildlife. This first began with monies from the federal government for protection of endangered and threatened species, and from the state for alligator management," Stanberry remembers. "More recently, more money has been made available for management of nongame wildlife."

Stanberry also points out that since his early days in deer restoration, Florida's deer population has "exploded, leading to the necessity now for herd reduction in many areas of the state. This is true for deer, although such species as crocodiles, bald eagles and panthers are in short supply and warrant recovery plans leading to restoration."

King sees a democratic element in what the Commission does. He says, "As a state agency, we have always been tuned in to the desires of the public. Because of demands from the citizens of this state, the Commission has broadened its work tremendously.

"Today," he says for example, "public lands must be shared between those who want to hunt, and those who do not.

"In years past, some hunters sometimes felt the public lands managed by the Commission were there exclusively for their use, but today, they recognize that some people might just want to camp or use the land for wildlife observation. There is a much wider sense of sharing of these resources today." King says.

At the time pesticides were causing problems with wildlife elsewhere, much of Florida was still accessible only on horseback or by walking.

A mounted wildlife officer checks a hunter's license, while on patrol. Circa 1965.

Stanberry also comments on the direct public participation in the management of the state's wildlife resources. "There are many individuals in Florida, and a number of active groups and organizations, which in my mind, more or less serve as guardians or 'watchdogs' for our lands and wildlife. Two of the most significant organizations are the Florida Wildlife Federation and The National Audubon Society.

"They are a necessary element in our ability to consider different opinions and needed changes in how we manage wildlife resources," he adds.

King says, "The public in Florida is *listened to* by the Commission."

Both men see the present public awareness of wildlife issues as being much greater than ever before. King expressed this view as, "More awareness of the conflicts between the needs of people and those of wildlife."

They agree that the rapidly increasing population of people in recent decades of Florida's growth has had significant and long ranging effects on wildlife, and on the space available to enjoy wildlife.

Stanberry notes, however, that Florida still has many areas such as marshes and densely vegetated zones, which "you can't readily reach. These isolated habitats are still, even today, beneficial to wildlife."

Stanberry and King acknowledge that the variety of and amounts of chemicals in much of Florida's environment has increased over the years they have been here, but as King says, "We just don't know yet what the total impact is.

"I am not alarmed, but I am very concerned about such modern problems as chemicals in the water system, air pollution, acid rain and other environmental problems of today."

Stanberry says, "Florida, during the years that DDT and similar organochlorine pesticides were being widely used in other states, was just not that far along in its development. Much of Florida was still unpopulated then, and its many isolated acres just didn't receive the influx of these chemicals that were severely affecting wildlife elsewhere.

"That is not to say that the chemicals being used today, many of which are new, are not having an effect, however. It's just too early to tell what effects we'll see in the future."

King and Stanberry also see Florida's future wildlife work as somewhat altered from what it has been traditionally. Stanberry sees the work of future conservationists as being "concerned with much more than just gathering natural histories of the various species. "We know now that sometimes certain previously little noticed species can serve the human population as monitors of the overall conditions of the environment in which we both live.

"The well being, or lack of well being, of certain species can very well signal changes which we need to look at more closely and perhaps take action to correct," Stanberry notes.

King says the knowledge of the modern effects of chemicals and pollutants "Will be increased by those ▷

Stanberry and King both see the future of wildlife conservation in Florida as somewhat altered from what it has been traditionally.

GFC Photograph

Game biologists setting nets in a 1966 pheasant capturing study.

who will continue to work in the various areas of wildlife conservation."

To today's youth, who may be considering careers in the fields of conservation, Stanberry and King advise that formal education is absolutely essential.

"To the master's degree level," Stanberry feels is fast becoming a minimum requirement to enter almost all conservation careers. "And, today's conservationist needs to know more than just biology. There is so much more to working in these fields than just science. Being able to deal with people and to handle administrative procedures is also important."

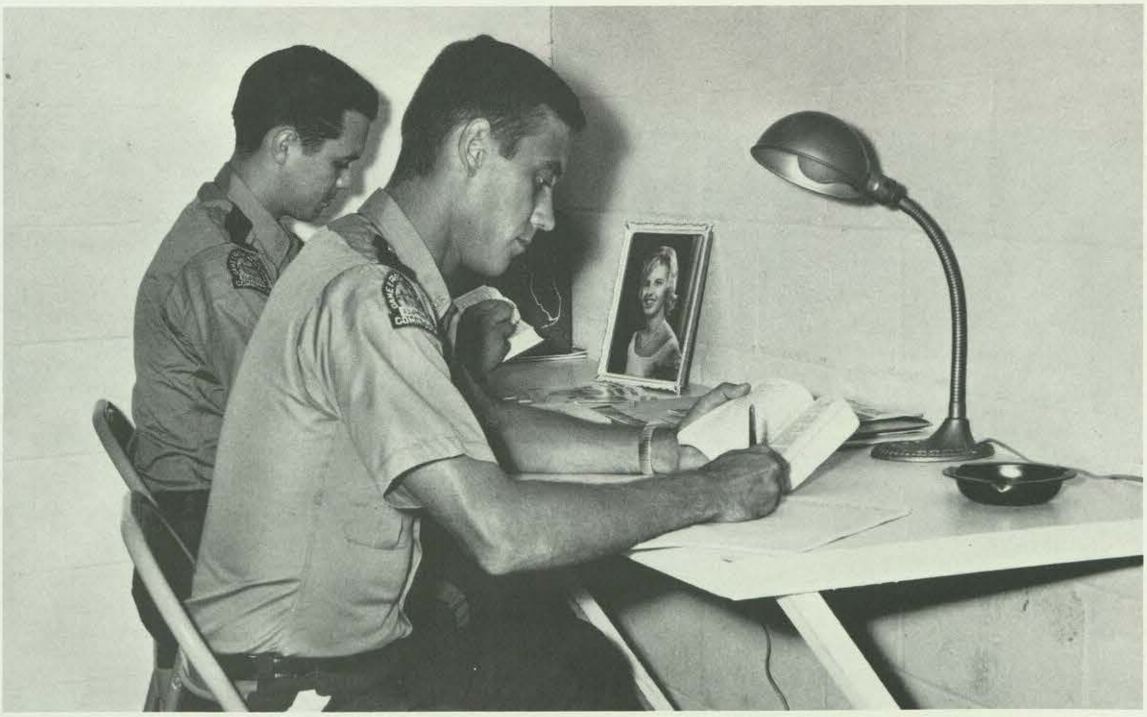
King says that in addition to becoming educated, "Sacrifices and commitments will be necessary to meet the goal. The young people of today are facing the most challenging times for conservation in our history.

"With Florida's population growing tremendously, it will become more and more important and certainly more of a challenge to just maintain the status quo. Just keeping what wildlife resources we have now is going to be so difficult that the young man or woman entering the field today will have to be more than just *good.* They will have to be the *best.*"

Stanberry adds, "Keeping the trust of the people, to take care of our wildlife, and at the same time do what is best for the public, is also a very large part of the job." ☐

"The young man or woman entering the field today will have to be more than just good. They will have to be the best."

Candidates train at the Commission's wildlife officer academy in 1967.



GFC Photograph

JACK·BE·NIMBLE

By Dick Dale

When more than a little frost appeared in my slightly thinning locks, I decided I'd had enough of climbing trees to sit in shaky deer stands and walking over countless rattlesnakes in palmetto patches.

From that day forward, I proposed to limit my hunting harvest to quail and possibly dove. A wing shooter! But first things first! There was need of another identity in my plans. A true friend who would always be happy to share my sport—a bird dog.

I read avidly for months about pointers, setters and retrievers—vehement declarations by the best dog writers in the country, each supporting his dog as the best dog.

Through it all there was one bird dog breed that caught my attention. One no writer could bring to print without an obvious emotional attachment to this remarkable creature: the Brittany spaniel. One man even insisted the animal could talk politics. I was sold. We would get a Brittany.

It wasn't easy. Brittanies, apparently, were in short supply. But find one we did. My dear wife placed the ungainly bundle in my arms when I arrived home one evening.

"He was the last of the litter," she said, half apologetically. "I think they called him *the runt.*"

I looked at his long legs, compact puppy body and then I looked into his eyes. He was perfect. And, he was MINE! I knew he would grow up to be a moderately-sized adult; perhaps even a show dog. From that evening on, I must admit, I rushed home after the working day, but not in anticipation of a fine meal or the company of humans. I rushed home to see Jack.

His full name would be Jack Be Nimble. I needed help with naming a dog whose heritage was French, so in desperation, I called the language department at the university. A soft-voiced secretary answered.

"I want to talk to a Frenchman," I said, quite seriously.

She giggled, put the phone on hold, then presently a male voice (with no accent whatever) said, "Try me."

"I want the French version of 'Jack Be Nimble'," I explained to him.

"There isn't any," he said flatly. "*Jack* doesn't exist in French. I can't help you."

"Sir!" I insisted. "You don't know the importance of all of this. I have a fine French dog. A Brittany spaniel who will be my companion for many years. He must have a name and I want to call him Jack Be Nimble."

There was a long silence and then he came back, a new warmth in his words. An enthusiasm! ▷

"I have a fine French dog, a Brittany spaniel who will be my companion for many years."

Wm. Greer-Photograph

Brittany spaniel

"One man even insisted his Brittany could talk politics. I was sold. We would get a Brittany!"

"In that case, let us put our heads together," he said. "How about Jean--that's French for *John*—and the word *agile* which is the same in English. *Agile John* would be pretty near your Jack Be Nimble. But, wait! We could name him *Jeannot Agile*. Pretty classy, Hey?"

"Perfect," I said. "Sir, you have surely done a great service to dogkind. We can never thank you enough."

"My pleasure," he said. "Have a nice day!"

And so, Jeannot Agile received his official French name.

A nice day it was and Jack and I began a beautiful relationship. I shortly discovered that he knew more about what was to be done than I did. His inborn intelligence was a boon to our rather hectic training program.

On occasion, my wife took him for a run on a long training line. Oh how he hated that line. He would race off until the slack was gone and he was jerked abruptly backward. One day, after several upsets, he sat down and thought it all out.

To my wife's amazement, he gathered loops of the training line in his teeth, back to where she stood. Very carefully, he dug a hole, pushed the line into it and covered it all up. Then, free of the offender, he went headlong for freedom. But, only to be brought up as sharply as before. The line wasn't a problem after that.

I remember the morning we went on our first free running quail hunt. Jack was doing fine in the forest, zipping about like a vacuum cleaner. The quail were obviously somewhere else and his range became wider and wider. I sauntered along quite alone.

Rounding a curve in the trail, I spotted a tree with a great growth of mistletoe, a must for the holidays. Two shots brought most of it down and I busied myself collecting it.

When I straightened up, there was Jack. His forelegs were braced apart and his haunches were tense. There was a frown on his face. I could almost read his mind. "Where's the bird? Where's the bird?" I felt like a fool.

A few weeks later, we were free-running again and when I became tired of chasing over a lot of real estate I started home. Jack, however, was doing his thing all the way back. As we neared the house, he suddenly froze in the deep grass.

In typical human fashion I began yelling at him, calling him some poorly chosen names and insisting that he come at once. This went on for a time until I realized the dog was waiting for the right word. The right command.

"Go!" I yelled. Jack dove forward and flushed the prettiest covey of quail I have ever seen. I didn't even fire a shot. Instead, I went to him, put my arms around him and shed tears of joy into his fur. I had my bird dog! ☐

Author's Note:

Jeannot Agile ("Jack Be Nimble") died short of his first birthday under the wheels of a truck. In time, the loss was lessened and there is now Jeannot Agile II. He is nine years old. His memorable predecessor rests under the oak tree in our back yard.

Four Bird Dog Breeds

A number of pointing breeds are available, but five are most popular for hunting quail in the Southeast: English pointer, German short-haired pointer, English and Irish setters, and Brittany spaniels. Here's a rundown on four of these:

English pointer

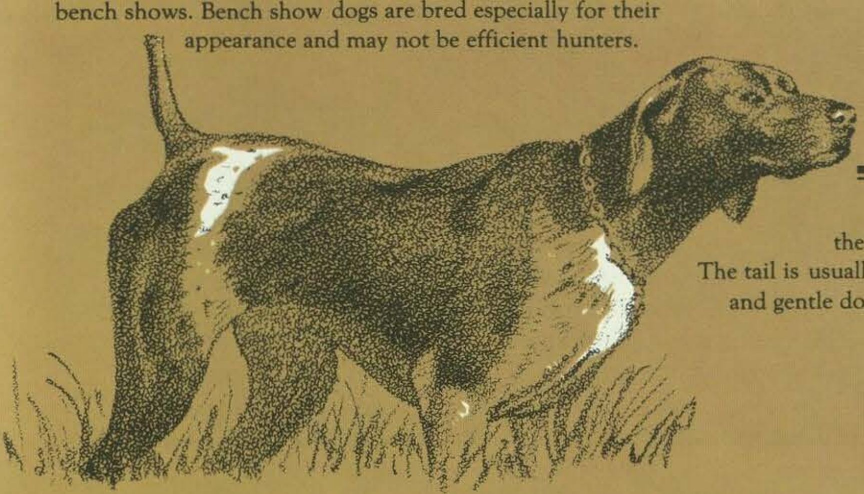
A medium-sized dog, standing 24 to 26 inches at the shoulders and averaging 60 pounds. The English pointer's short hair makes the breed well-suited to the warm South, but does not provide protection from rough cover or very cold weather. English pointers are eager, enthusiastic hunters, but may require firm discipline. They are bold and independent, thus make only average house pets.

English setter

Smaller than either of the pointers, weighing 45 to 50 pounds and standing 21 to 25 inches at the shoulders. It is a long-haired dog and is not well adapted to hot weather. The "feathers" on the legs and tail gather burrs and require frequent grooming. English setters are gentle and affectionate and make good house pets. They are eager to learn and please and respond well to gentle firmness.

Irish setter

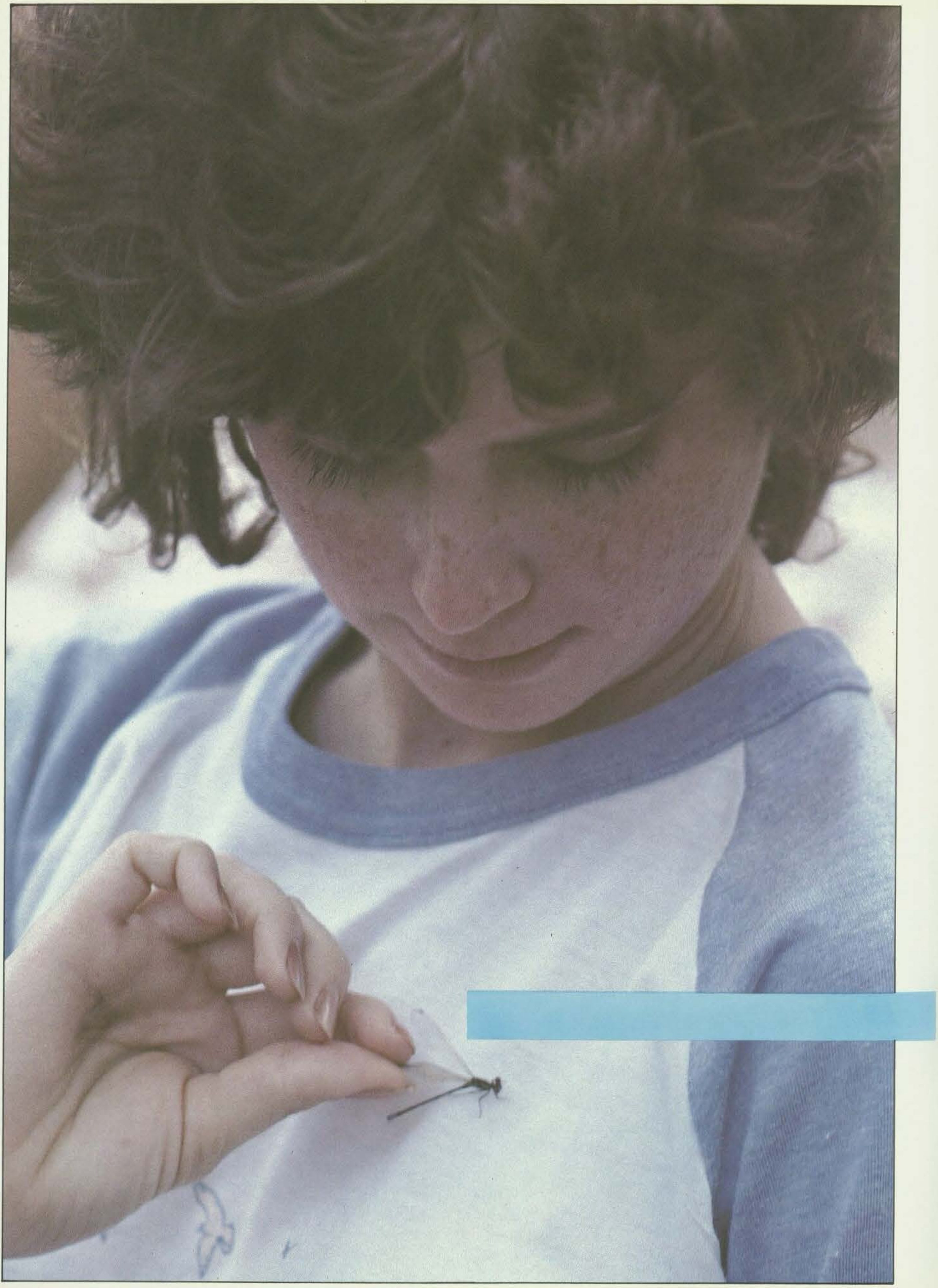
Standing 21 to 27 inches at the shoulders and tipping the scales at 50 to 70 pounds. The long coat tends to pick up burrs and stickers. If you're interested in getting a setter (or other breed) to hunt quail, be certain to select one from field-trial stock rather than one bred for bench shows. Bench show dogs are bred especially for their appearance and may not be efficient hunters.



German short-haired pointer

Averaging 60 pounds and standing 23 to 25 inches at the shoulders. It has a short coat like the English pointer. The tail is usually docked to about six inches. This is a mild-mannered and gentle dog that makes a good house pet. Most short-hairs learn quickly but may require firm discipline.

—Carolee Boyles-Sprenkel



THE OUTDOOR CLASSROOM

Text and Photographs By

By Jane T. Adams

Preparing today's children for the ecological challenges of tomorrow

Florida's rapid population growth could result in it becoming the fourth most populated state in the United States by 1990, planners predict. What impact will this have on the state's human and wildlife inhabitants? How will present residents deal with the changes expected to be imposed by the continuing activity and development that is ahead?

Perceptive De Soto County citizens have addressed this issue and they have established a plan for educating youngsters who will soon confront these conditions. In 1973, the Environmental Learning Laboratory (commonly known as "The Outdoor Classroom") became a reality. This project provides a place for kindergarten through twelfth grade students to interact positively and productively with their environment.

Classroom school teachers in De Soto, Charlotte, Hardee, Sarasota and Manatee counties are offered opportunities to schedule instructional time at the laboratory for their students. In addition, many organizations such as the Florida Chapter of the National Audubon Society frequently visit the center. Records reveal approximately 2,000 individuals, other than students, come to this facility yearly—especially on weekends.

Project Director Bill Stanko explains that a major objective of the laboratory is to increase awareness of the interrelationships and interdependencies among humans and their environment. By providing specific knowledge of ecosystems that exist in their immediate surroundings through "hands on" experiences, and by emphasizing the importance of ecology, students develop greater awareness of conservation techniques. Informing visitors that action must often be taken to maintain and improve environmental quality is also a constant goal.

Located 11 miles from Arcadia in De Soto County, the laboratory site is in a heavily wooded area on Pomeroy Creek, west of the Owens community and east of Horse Creek. Here, visitors find four different plant community types: pine/palmetto, oak hammocks, cypress swamp and hydric hammock. Ecotones (areas of intergradation between two plant community types) are also there. Trails and boardwalks throughout the 40-acre property enable visitors to gain increased understanding of each type of community's flora and fauna.

Walking along these paths, you can also see a water test well, provided by the Southwest Florida Water Management District. As De Soto County grows, today's students will become more involved in monitoring the underground water level. When the well was drilled, the soil, sand and rock core was systematically removed and labeled. From these earthen samples, students can appreciate the geologic history of De Soto County.

The boardwalk also provides a chance to observe many native Florida trees and other plants. Coastal-plain willow, cypress, popash, water locust, and poison ivy are but a few. The Environmental Learning Laboratory staff pointed out blackberry blossoms, smilax, red maple seed pods and wild coffee the day we were there.

Old-timers report consuming a palatable but bitter drink made from the berries of the wild coffee plant.

Along these same trails, alligators, turtles, snakes, birds and other animals abound. As students approach the ▷

laboratory's well-kept zoo, they come into closer contact with animal life. The Game and Fresh Water Fish Commission was helpful in providing the animals which established this facility as De Soto County's first zoo. Here, visitors have a chance to see and touch many delightful animals.

Housed here are such species as gray foxes, red foxes, snakes, raccoons, opossums, alligators, fox squirrels, gray squirrels and bobcats. Explanations are given which identify animals as herbivores, carnivores or omnivores and their relationships in a complex food web are discussed. Staff members explain interdependency and teach students that if humans upset the balance of nature, unexpected outcomes often occur. In nearby stations, observers also find additional animals—deer, hogs and exotic creatures—which have been donated to the facility.

Another interesting component is the study of alternate energy forms. It is in this section of the laboratory that students learn about utilizing solar energy. Solar collectors are explained and students see solar cookers in use. It is noted that such methods are not new, but are more efficient today. Methane utilization is discussed while a methane generator is demonstrated. The staff tells of the potential value of methane production, especially in rural areas. Wind generators are also analyzed, with emphasis placed on their potential use in windy geographical locations. Students also watch the production of alcohol in an alcohol still.

The distilled ethanol is mixed with gasoline for use as fuel in such vehicles as farm equipment. And students watch a whirling electric meter supplied by Florida Power and Light Company as it registers the amount of energy used by various electrical devices commonly found in modern Amercian homes.

Students often find it interesting to travel with instructors to a nearby De Soto County sanitary landfill. Here, they see a large trench which contains garbage placed between layers of soil. The concept of recycling is introduced, and as a result, many students begin their own campaigns to recycle

Instructor Kayton Nedza demonstrates the features of an adult opossum.

aluminum cans and glass bottles.

One of the most popular studies revolves around the pontoon boat excursion. On one of these trips I had the privilege of accompanying two De Soto County High School classes. One class was studying vertebrates and arthropods, while the other was analyzing the ecology of the area.

Excitement abounded as the students left their school bus and boarded the boat to be transported about a mile down the Peace River to the study site. Classroom instructor Jerry Waters explained that all living specimens were to be released after their identity was logged. Students soon discovered that the site's ponds contained shiners and bullhead catfish while their catches in the river were mainly blue catfish and blue crabs. Comparisons and contrasts were made all day as busy students gathered their finds.

Environmental Learning Laboratory instructors work in close conjunction with school teachers to identify field areas which provide examples of textbook lessons. Bill Stanko's history background surfaced as he explained life in the early 1900s, when phosphate mining was thriving along the Peace River. Numerous fossilized bones and teeth were quickly located, attesting to additional long-past activities.

John Reynold's keen vision resulted in spotting some large panther-like tracks which were brought to the students' attention. And always, right in the middle of student activity was Professor Waters, explaining fascinating attributes of animal life. This teacher has been bringing his classes to the laboratory for field studies since 1973. Anyone present could quickly understand why the contagious enthusiasm of staff members and students permeated the scene.

When specimens were captured, students quickly congregated. Each wanted to examine species such as the exotic blue tilapia and an Asiatic clam which now inhabit the Peace River.

When the students stopped for lunch, several explained why this day was special to them. Sophomore Mark Fusco said, "This is an exciting chance to do science in a natural habitat, and it's much more enjoyable this way, compared to just studying a textbook."

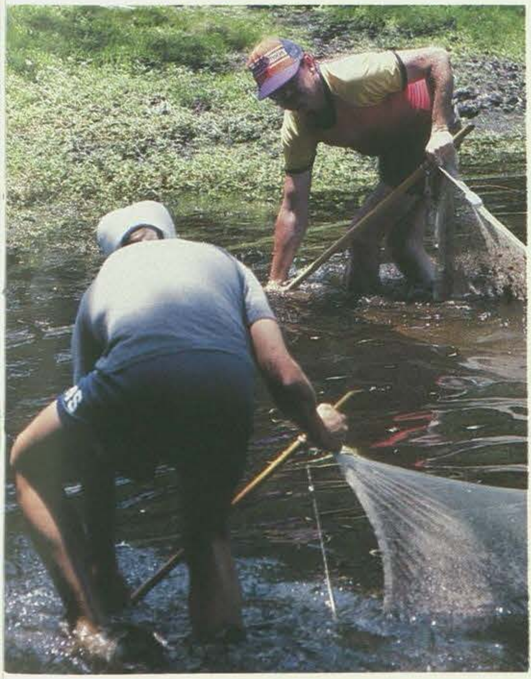
Kathy Mundell added, "I enjoyed it. It was beneficial—a great way to learn about the environment."

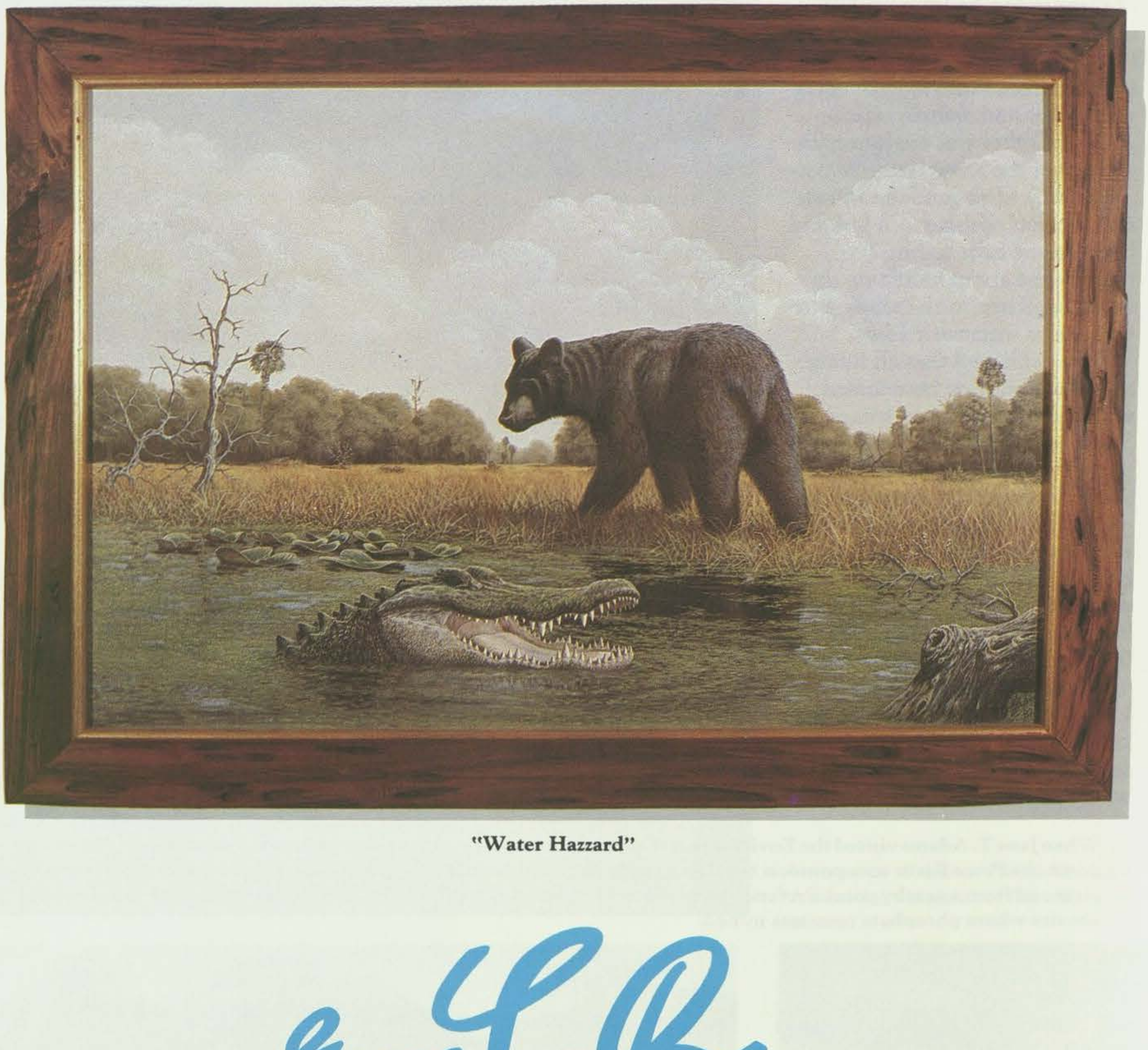
Senior Michael Staley said, "A terrific learning experience—you actually get *to see* what's written about in our textbooks."

Another activity often conducted on similar visits is the study of the Peace River flood plain. Here, students are able to see the danger of building a home in flood plain areas.

"The Outdoor Classroom," under the sponsorship of the De Soto County School Board, has received much recognition. Its active involvement with young people and adults was recognized by the Florida Community Education Foundation Inc. in 1982 when the foundation presented their Award of Excellence for outstanding achievement in community education. □

When Jane T. Adams visited the Enviromental Learning Laboratory with a group of high school students, they went down the Peace River on a pontoon boat. At a study site about a mile away, they seined aquatic creatures from the river and from a nearby pond. Professor Jerry Waters helped interpret both the live animal finds, and fossils found at the site where phosphate once was mined.

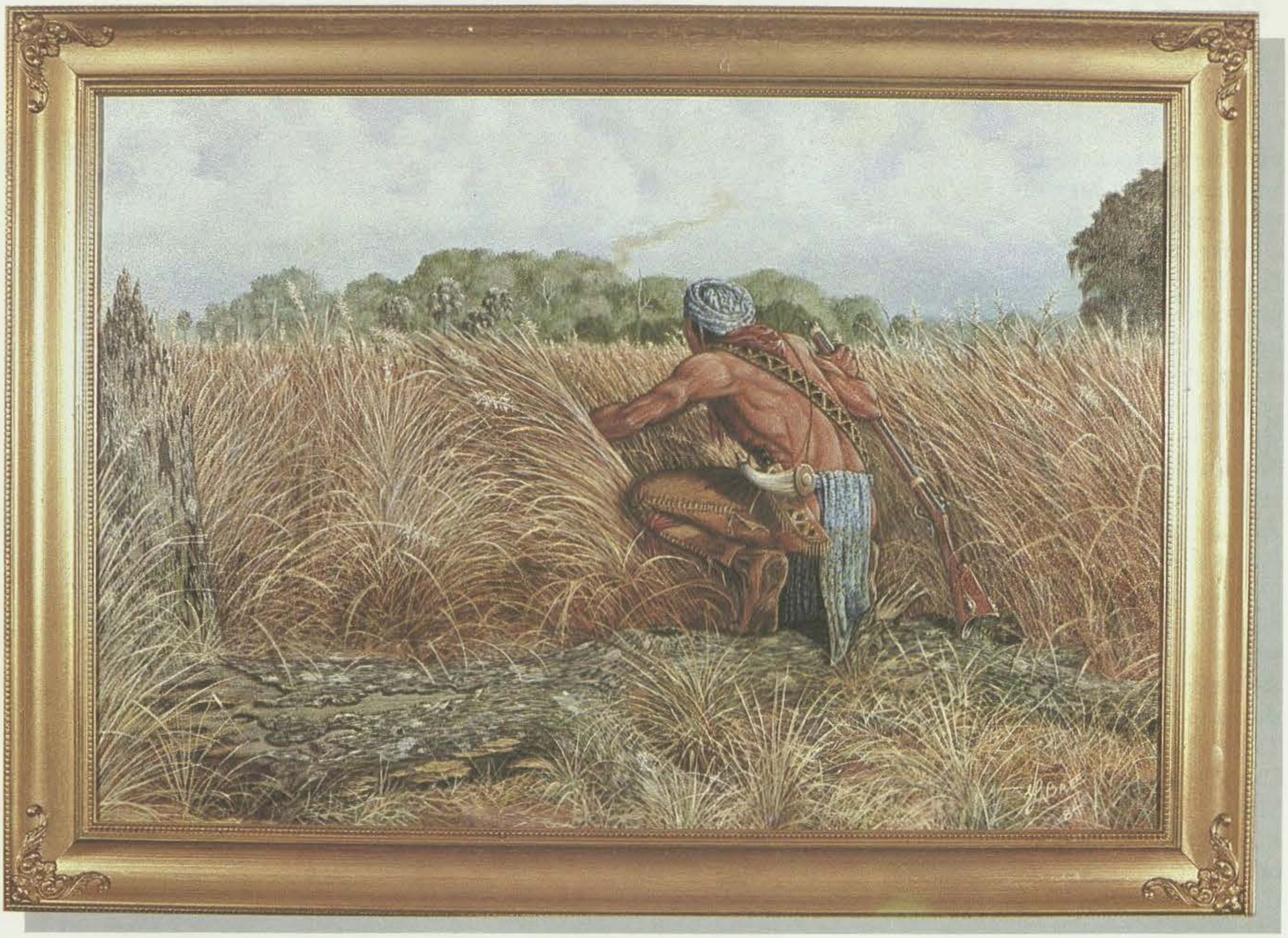




"Water Hazzard"

Guy LaBree

His oil paintings show wildlife and the lore and legends of Florida's Seminoles.



"The Scout"

The Seminoles call Arcadia, Florida artist Guy LaBree "The Barefoot Artist." He often goes barefooted, even when out snake hunting, his favorite hobby. There is nothing "bare" about his oil paintings, though, as they have a colorful, vibrant, enchanting, sometimes surreal quality. On canvas, LaBree brings to visual life the legends, customs, culture, history and dignity of Florida's best known Native Americans, and realistic views of Florida's native wildlife.

LaBree, a third-generation non-Indian Floridian, grew up near the Dania/Hollywood Seminole Reservation, where during the 1940s and 1950s, he made many lasting friendships with the people living there. Over the years since ▷

Guy LaBree

then, he has received encouragement and support for his works from these valued friends.

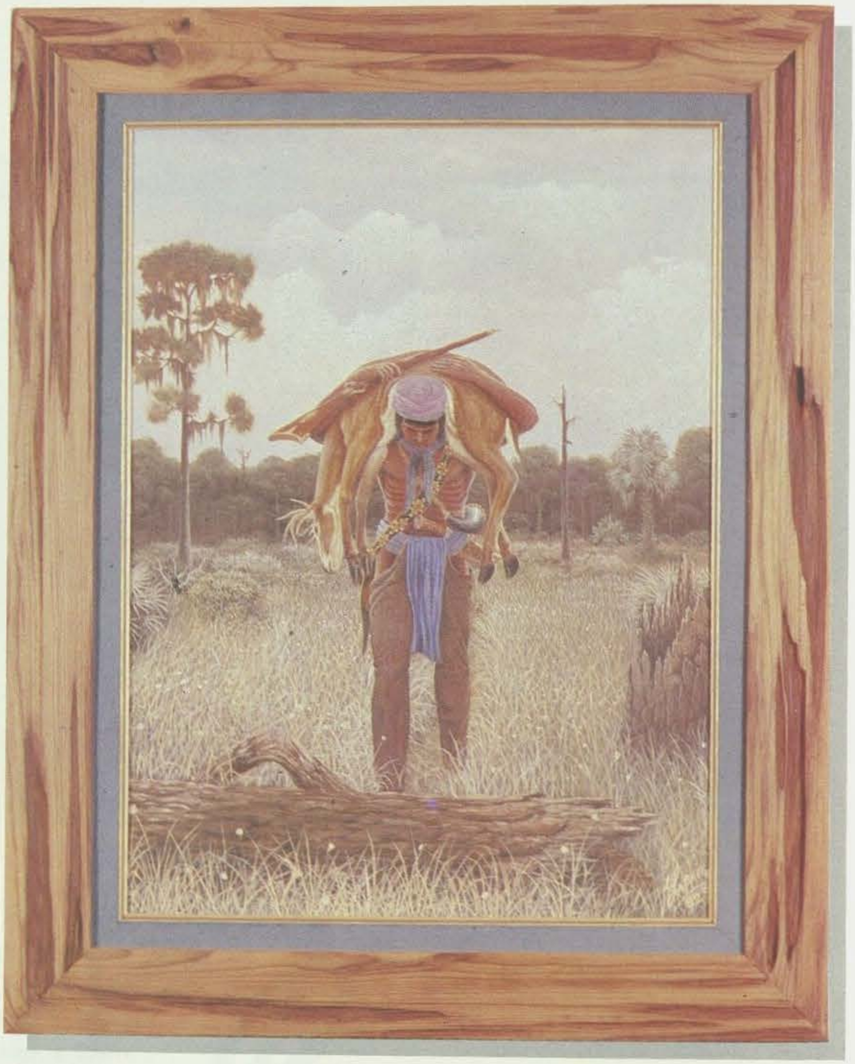
Before he begins a painting, he first thoroughly researches his proposed subject. This might lead him to reference books or take him on interviews with historians (both professional and amateur) or to view collections of artifacts. He discusses the subject with Seminoles to get "energy and inspiration for the painting," if it concerns them. For wildlife, he draws on his many years of experience outdoors.

LaBree's oil paintings have been widely accepted in exhibitions throughout Florida, including art shows in Lake Placid, Tampa, Tarpon Springs, Orlando, Okeechobee, Dade City, Kissimmee, Sebring and Hollywood. Visitors from around the world have seen his works at the Seminole Tribe's Cultural Center in Tampa and at their Arts and Crafts Center at Hollywood. He was featured as a Ducks Unlimited artist in 1984, at Tampa and Brandon.

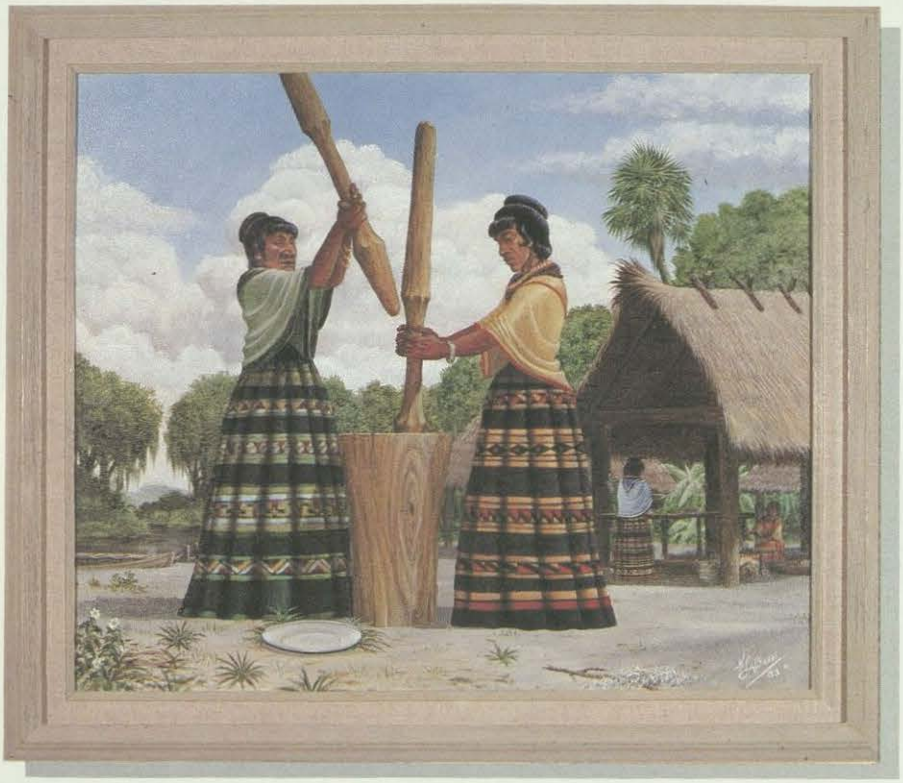
There is unique knowledge to be gained from the study of his many paintings which might otherwise be lost in time. His perceptions on canvas remove us from the urbanized world in which most of us now live, and place us in a setting where humans and nature are profoundly interrelated in the realms of both life and death. Much of the complexity, honor and courage of the people who first inhabited Florida can be imagined from the mystical and realistic Indian scenes which LaBree portrays so well.

His paintings can be viewed July 8 until August 2 in DeLand, at a showing to be held at the Empire of America Federal Savings Bank.

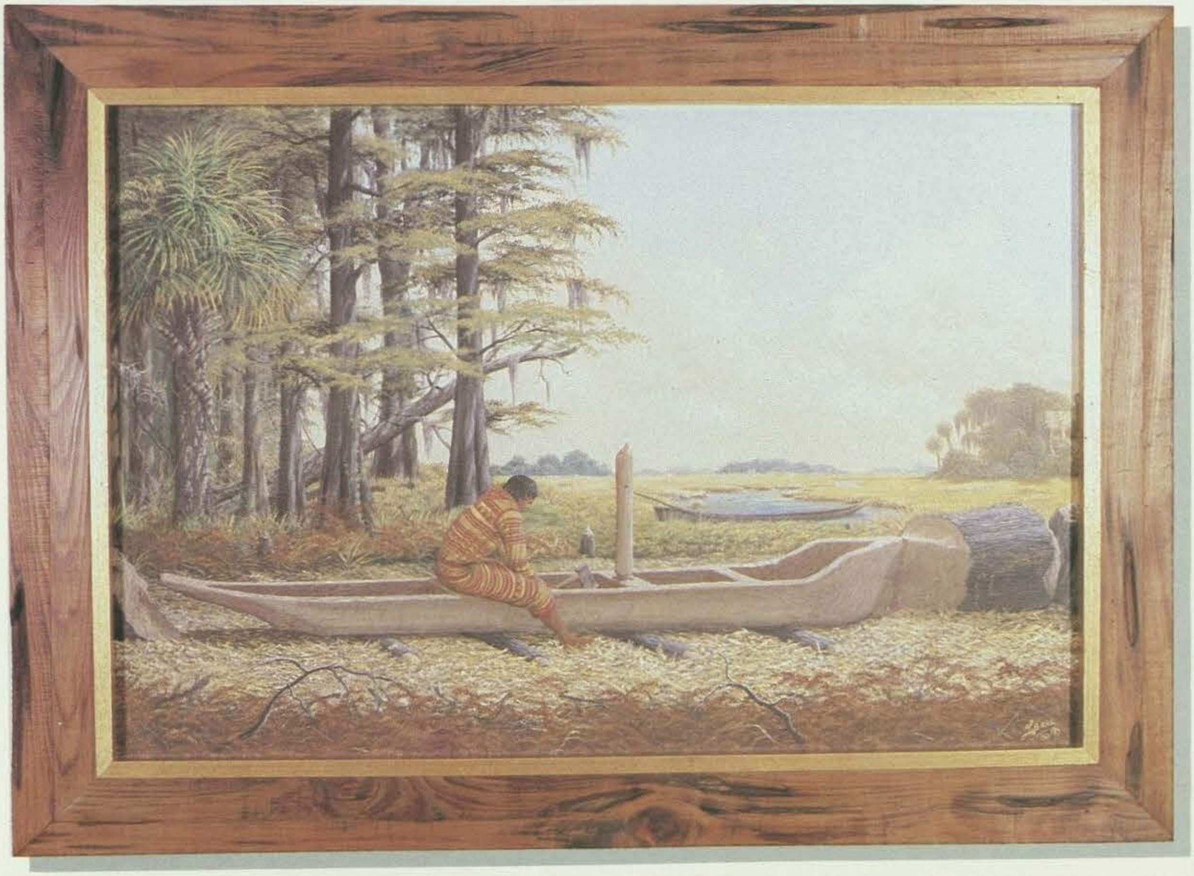
—John Waters Jr.



"Lone Hunter"



"Women's Work"



"Canoe Builder"

Lynn M. Stone-Photograph

An Experiment With EAGLES

A Cooperative Experiment Among Several Southern States Hopes to Restore Bald Eagles to the Nation.

By Henry Cabbage

Atop high platforms in three other states, tiny eaglets hatched from Florida bald eagle eggs have summoned the strength they'll need to fly, hunt and, most importantly, to grow to become reproducing adults.

In Georgia, Alabama and Oklahoma, scientists are watching with high hopes as the young southern bald eagles inch closer to their proper place in nature there. If these human-reared birds can survive in the wild, there is hope that this species someday will be restored to all the skies and forests of the nation they have symbolized for two centuries.

The experiment to restore bald eagle populations in other states had been years in the planning and, during the final days of 1984, wildlife experts were ready to begin work. From nine Florida eagle nests near Gainesville and in the Ocala National Forest, the scientists gathered 18 bald eagle eggs to be rushed to the George M. Sutton Avian Research Center at Bartlesville, OK. There, 17 of the eggs were hatched, and the eaglets fed by hand until ready to be released into the wild.

Florida was selected to supply the eaglets because it is the only southern state with a relatively healthy bald eagle population. During a 1984 census, 326 nesting pairs were counted in the state.

Don Wood, endangered species coordinator for the Florida Game and Fresh Water Fish Commission, the scientist who orchestrated the project, said the experiment experienced both its first disappointment and its first signs of success during the first hours.

"One of the eggs had an extremely thin shell," Wood said. "And in the nest where we gathered it, there were thin shell fragments from a second egg which had already been crushed before we got to it."

As the scientists had feared, the thin-shelled egg contained a dead embryo—probably the result of pesticide contamination in the parent eagles' food.

But their spirits rose when the first of the other 17 eaglets began cracking its way out of its egg.

"It was pipping (pecking its way out of the shell) before it even reached the laboratory in Oklahoma," Wood said.

Meanwhile, scientists directed by Dr. Steve Sherrod of the avian research center in Oklahoma were making elaborate preparations to receive the eggs and care for the hatchlings as soon as they arrived.

Scientists have learned that a bird egg has a better chance of hatching if a bird sits on it for a couple of weeks before the egg is placed in an incubator, so, at the research center, the staff had a small flock of chickens on hand to help incubate the eggs. By February 15, all 17 of the normal eggs had hatched.

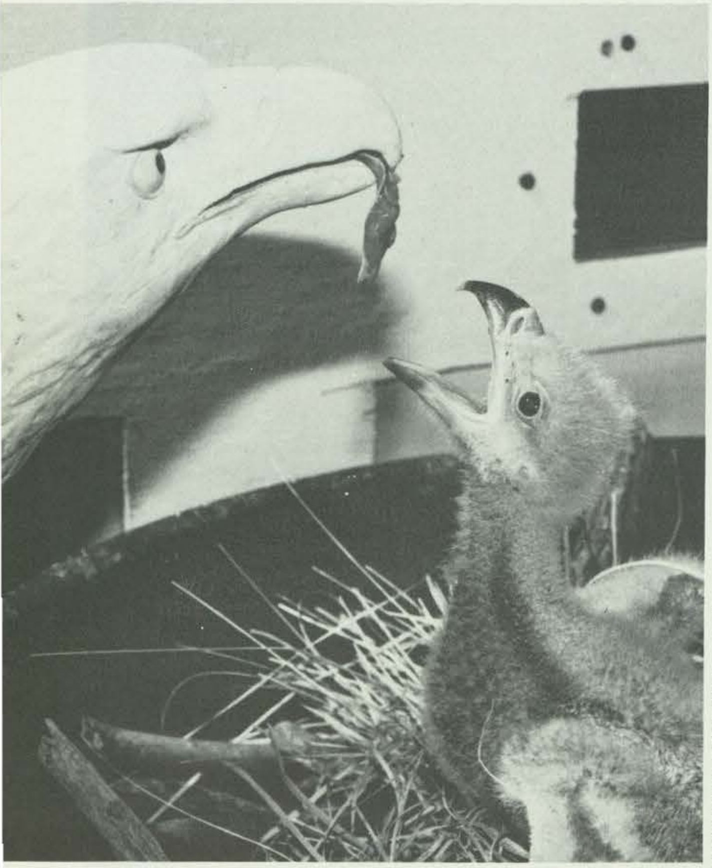
Feeding was always done by using puppets, made to resemble adult bald eagles, to deliver the food to the youngsters. This was done to imprint the baby birds to the features of an adult eagle instead of imprinting them to humans.

Imprinting is a behavioral phenomenon found mostly in birds, but also in a few other wildlife species. At some time during the bird's early life, it becomes behaviorily attached—usually to the parent bird or its siblings. This behavior is beneficial in many ways, and ▷

Oklahoma DWC-Photograph

Bald eagle chicks are covered with down when first hatched. The experiement successfully hatched 17 eaglets.

To keep the eaglets from associating humans with food, puppets made to resemble adult eagles were used to serve their food.



Oklahoma DWC-Photograph

explains in part why ducklings, for example, will follow the hen into the water, and wherever else she goes. In some species, imprinting is important to recognition of a mating partner of the same species later in their lives.

"That was a major consideration from the beginning," Wood said. "It was important that we prevent the birds from becoming accustomed to being around people and that we also prevent them from associating food with people."

All this time, Dr. Michael Collopy and other University of Florida scientists working on the project were monitoring the nests from which some of the eggs had been gathered.

"Normally, bald eagles lay only one clutch of eggs a year," Wood noted. "However, if the nest or the eggs are destroyed by predators or inclement weather early in the nesting season, the parents usually will produce a second clutch."

Florida's bald eagles lay their eggs in December and January. So the scientists took the eggs in late December, figuring the nesting pairs of eagles would replace all the eggs taken by the scientists.

"And it worked out great," Wood said. "Apparently all nine nesting pairs of eagles from which eggs were taken produced second clutches."

Wood said six of the pairs produced new eggs in the same nests, and in the other instances eggs were laid in nearby nests. "It's not unusual for eagles to have more than one nest per territory, and we believe those latter three nestings were made by the same pairs that produced the original eggs, but they just moved to alternate nests."

Then, the Oklahoma researchers suffered a major setback.

Four of the eaglets died in rapid succession before the scientists were able to determine the nature and cause of the problem, which turned out to be a nutrient deficiency caused by feeding the birds frozen fish. But once that was solved, by altering their diet and feeding them vitamin supplements, the other birds recovered their health and thrived.

To complicate matters, the baby eaglets began fighting and had to be separated. Soon, however, the experiment was back on a successful track. Since then, the eaglets were transferred from the laboratory to elevated platforms, called "hacking towers," in their respective areas of release. Hacking is a method first used by falconers to accustom birds of prey to free flight, and to taking prey from the wild. It involves setting young birds capable of flight on a platform or open box on top of a pole or other high point. Birds at hack are free to fly, but can return to the platform for safety and food if they are unsuccessful at making their own catch. Three of the young eagles were sent to Butler Island, in Georgia; six to the Sequoyah National Wildlife Refuge in Oklahoma; and four to northern Alabama, near Scottsboro, to be hacked out.

About that time, researchers found a baby eagle beneath the base of its nest tree in the Gainesville area. The eaglet apparently had been pushed out of its nest by its parents or by a stronger sibling. It's also possible that the baby eagle merely fell out of the nest.

"In any case, it was in pretty poor health," Wood said. "We didn't think the parents would accept it back in the nest, so we captured it and sent it to Georgia to be added to the experiment there."

A final disappointment was that one of the Alabama birds died of an infection, but all the others are now flying free and apparently are adapting to their new surroundings.

"But the experiment will not be deemed a full success for at least four years," Wood explined. "That is when they will become adults and begin breeding. And we hope they will return to their foster homes at that time. That is, after all, the ultimate objective."

Before the juvenile eagles flew away from their hacking platforms, they were fitted with small radio transmitters which will enable scientists to electronically track their movements and survival in the wild. Also, all of them are wearing individually colored leg bands which will enable scientists to identify them later whenever they are sighted in the wild.

"Our hope is that once the birds begin living on their own, they will remain in the areas where they are released."

Why The Bald Eagle Declined

Bald eagles have been protected under federal laws since 1940. They once soared over all parts of North America including the United States, but since they are birds of prey, they are vulnerable to contaminants in the food chain. Their numbers dropped dramatically during the past half-century as levels of chemical contaminants increased in the environment.

"Pesticides were the biggest problem elsewhere," Wood said. "DDT especially. It found its way into the fish that make up the bulk of the eagles' food supply. The pesticide then made its way from the fish into the eagles and that caused a high mortality rate in the young. It also caused the birds to lay eggs with thin shells."

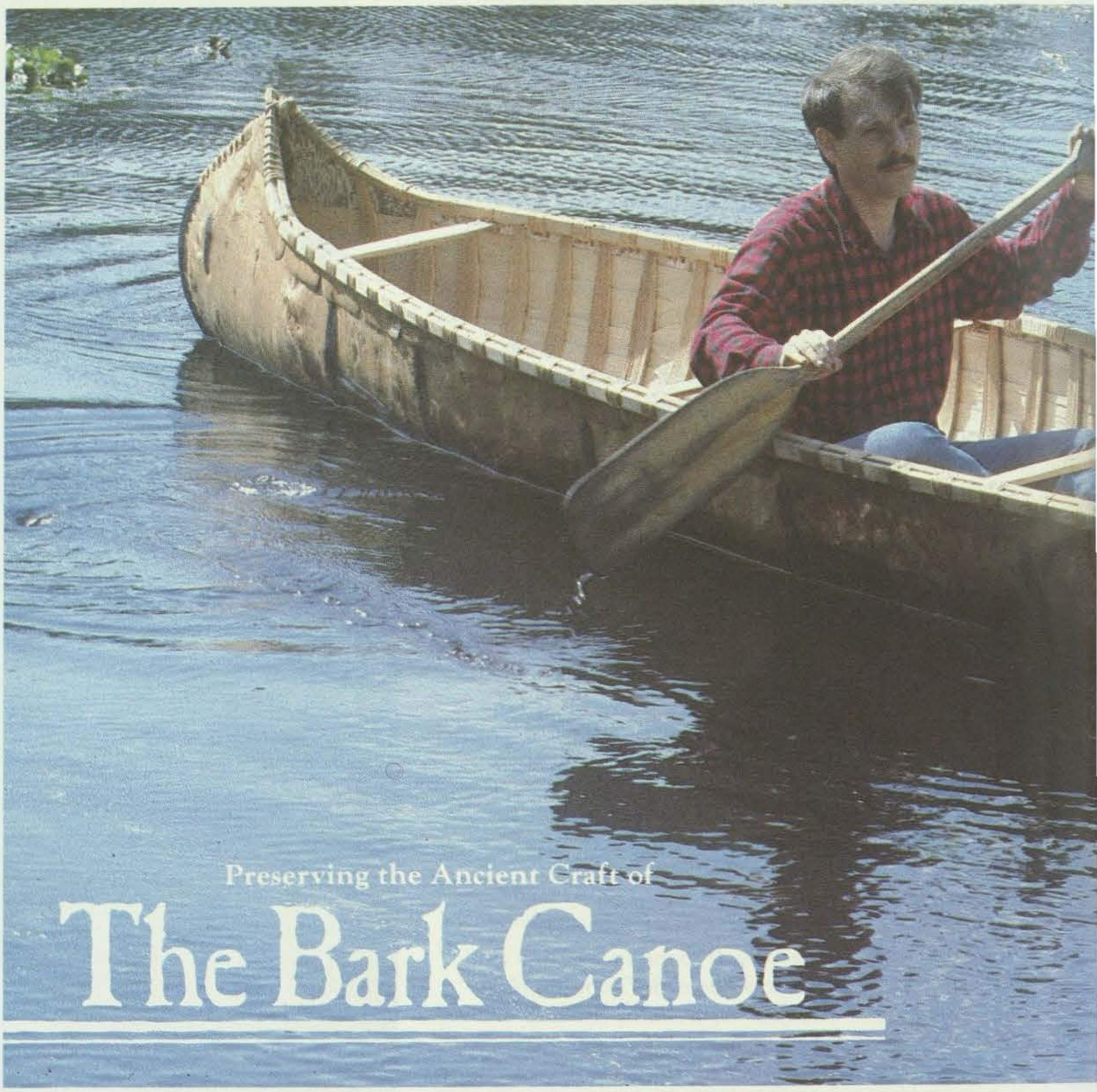
Thin-shelled eggs are easily broken when the parent bird sits on them during incubation. "Such pesticides, however, were never a significant problem in Florida," Wood pointed out. "That is why our population is currently fairly healthy. Destruction of habitat by land development has been, and continues to be, the principal limiting factor affecting bald eagles in Florida," Wood said.

Several years ago, the pesticides that were known to harm eagles and other wildlife species were banned in the United States. Today, DDT is no longer believed to be a major threat to the birds here. However, DDT is still used in other parts of the world.

All in all, Wood said, current environmental conditions are such that scientists believe our bald eagles and other species now have a much better chance of surviving in the wild. If these first eaglets are able to teach themselves how to hunt, and their instincts prove adequate to enable them to survive, scientists plan to continue the experimental transplant program next year. □

GFC Photograph

Southern bald eagle nest in central Florida.



Preserving the Ancient Craft of

The Bark Canoe

By Dan R. Stengle

William Hafeman doesn't hang a shingle on his workshop advertising his occupation. If he did, it could read "Keeper of the Ancient Art" or "Guardian of American History." Inside the workshop, Hafeman carries on a craft that Algonquian Indians taught the French fur traders more than two centuries ago. The craft Hafeman carries on is one that was partly responsible for opening up the vast northern wilderness of the United States to trade and, ultimately, modern settlement. If Hafeman did hang a shingle, it would probably just say "Canoe Maker" but that would be an understatement. William Hafeman makes *birch bark canoes.*

His workshop is located at the southernmost edge of the Chippewa National Forest in northernmost Minnesota. The north wind, threatening an imminent blizzard, keeps reminding me how far I have ventured from Florida to meet Hafeman. At 86, Hafeman likes a warm fire popping in the barrel wood burner in his workshop, though, so we are comfortable.

The shop smells of cedar shavings. It has an interesting conglomeration of souveniers of Hafeman's rugged outdoor life in the beautiful but harsh north woods—goose wings, deer antlers, yellowed photographs of hunting parties Hafeman has guided and wolves he has trapped to eke out a living.

Canoes that Hafeman has completed during the summer sit on racks along the wall. Most of the canoes are of the traditional Chippewa "longnose" design. Hafeman has written my name on a peel of birch bark that hangs from the cross-brace of one of the canoes. My canoe.

"Go ahead and look at it if you like," Hafeman says in his character- ▷

John Roberge-Photograph

Dan R. Stengle-Photographs

When Dan Stengle visited master canoe maker William Hafeman's shop, Stengle saw his canoe for the first time, hanging with a patchwork of bark pieces and other canoes in the works. Hafeman is shown at right.

istic way. I look and I can't take my eyes off of it.

Hafeman's thick moustache bobs as he smiles at my many questions. Then, as he has done many times in the 60-odd years since he first learned the art of canoe making, Hafeman describes the transformation of a birch tree into a 16-foot, 55- pound piece of American history.

The importance of tree selection in canoe building cannot be overstated for the tree will dictate the durability and appearance of the finished canoe.

The paper birch *(Betula papyrifera),* often called "white birch" or "canoe birch" has a smooth, lightweight but lasting bark. If the bark is too thin on an individual tree, it may crack easily. If it is too thick, layers of bark may separate or slough off. Hafeman looks for a tree with bark of uniform thickness of about ⅛ inch. If the bark is knotty or has been attacked by too many insects, it is unsuitable. Although small trees could serve, larger trees are often used in canoe making so that less fitting and binding of the sections of bark is required. One large tree can provide all the bark needed for a single Chippewa long-nose canoe, but the artist in Hafeman frequently prevails over the pragmatist.

"The color of the bark will vary some, from tree to tree," he explains. "And the bark changes color throughout the year, depending on when you get it."

So Hafeman selects a patchwork of bark pieces for each canoe he is building, and the final product exhibits a range of hues from light tan to a rich tawny.

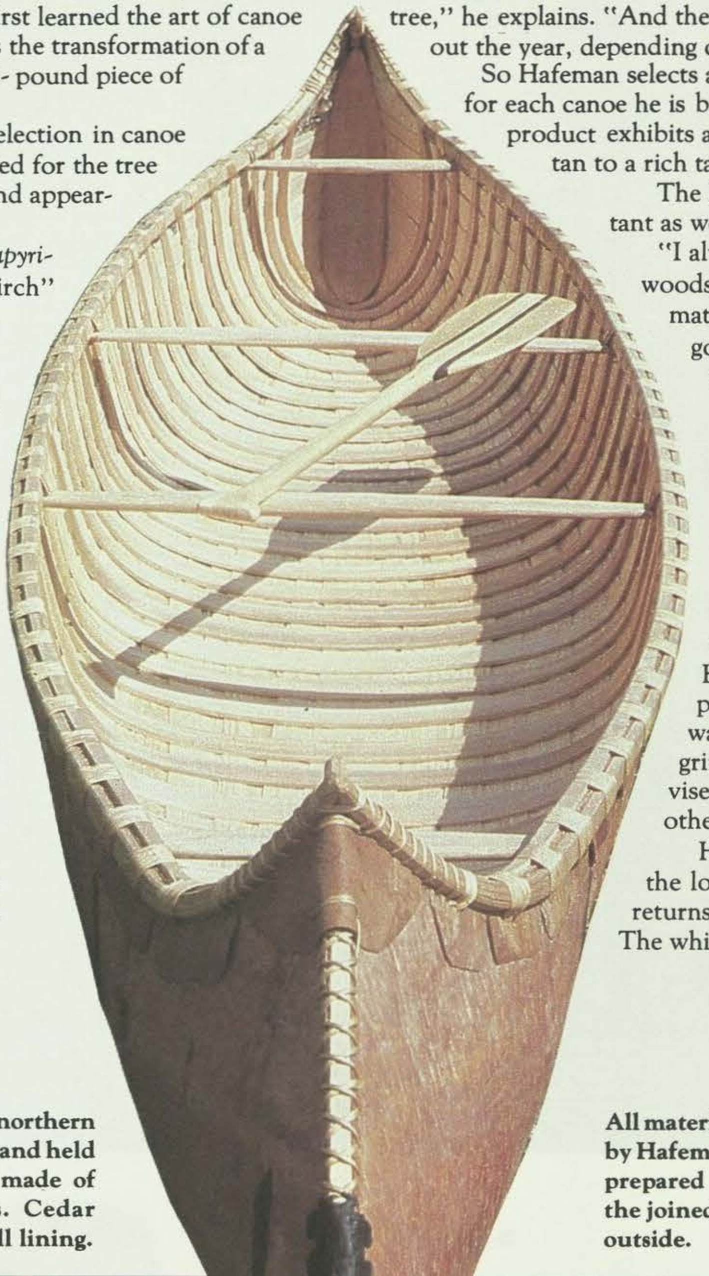
The location of the tree is important as well in the selection.

"I always take a tree deep in the woods" Hafeman tells me. "No matter how pretty a tree you've got in the open or at the edge of the woods, the bark will twist when you peel it."

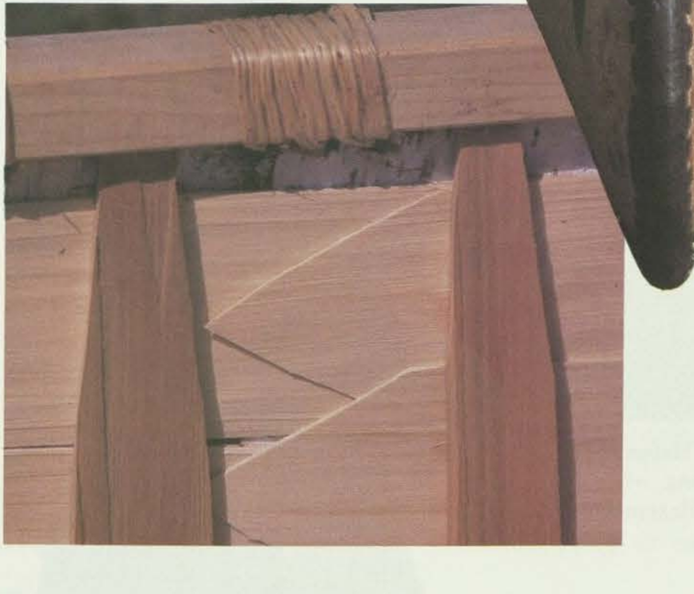
Outside, as I hunch down to defend against the draft of the driving north wind, I understand why that is.

When the right tree is found, Hafeman makes a vertical cut through its trunk bark. In the spring, Hafeman says "The bark just pops off, there is so much water in there." "Those," he grins, pointing to a bucket of vises and prying tools, "are for other times of the year."

Hafeman carefully rolls up the long strips of bark and returns with them to his shop. The white outside bark will form



Framing is made from sturdy northern white cedar, bent into shape and held together by stout lashings made of tamarack or spruce roots. Cedar shingles form the inner hull lining.



John Waters Jr.-Photograph

All materials are natural and gathered by Hafeman, except the commerically prepared pitch used to waterproof the joined pieces of birch bark on the outside.

John Roberge-Photograph

the inside of the canoe, and the brownish inside bark will serve as the canoe's outer skin. "Birch always curls inward when it dries," he says.

Brown side out, white side in. He shows me a calendar on his shop wall that was issued years before by a famous mining company. The print on the calendar depicts two buckskin-clad men paddling a bark canoe over a rough stretch of water. There are "lips" of birch bark lashed to the outside of the gunnels, white side facing out. "That," he says, laughing, "is an impossibility. Those would just curl up, with the white side out."

The canoe's frame is of sturdy braces and gunnels made from northern white cedar. Lining the inside of the canoe are cedar shingles, held into place by cedar ribbing. During construction, the ribs are water-soaked and bent so they push tightly against the inside of the canoe, ensuring the vessel will not lose its shape when the birch bark dries. Birch bark shrinks horizontally only, Hafeman tells me, so he strategically places the bark pieces to take advantage of the shrinkage for tightening up the canoe's skin.

The birch bark pieces are sewn together and, in turn, lashed to the gunnels using tamarack or spruce roots gathered from bogs. Each root is split by hand, and the split side is laid downward when lashed. The lashing is so exquisite and tight that the roots appear to have been machined. No nails or tacks are used in the construction of Hafeman's bark canoes.

Hafeman now seals the seams with a commercially prepared pitch. In the past, he used natural pine pitch for sealer but found that it cracked in the winter and ran in the summer. The pragmatist in Hafeman has prevailed over the artist for the sake of the canoe's durability. His use of commercial pitch is his only deviation from style of the natural products used by the original Chippewa canoe builders.

Finally, Hafeman repairs any leaks remaining after sealing. I look out at the cold river that runs a few feet from his shop, thinking that he must have gotten his feet wet a time or two.

Well versed in common misconceptions about bark canoes, Hafeman corrects my thought by telling me that he fills the canoe with water, searching for leaks from outside the canoe. It would be easy for a man of Bill Hafeman's knowledge to condescend, but he doesn't. The student is comfortable with his gentle teaching.

John Roberge-Photograph

Although Dan Stengle's canoe weighs only 55 pounds, its 16-foot length is easier to handle with two persons carrying it. Its light weight, however, does not impair its sturdiness.

His students have been many and, at times, sophisticated. The Minnesota Historical Society commissioned Hafeman to build a massive Montreal *Voyageur* canoe like those used on the Great Lakes during the height of the French fur trade. When Hafeman told them he had never seen a Montreal canoe, the Historical Society brought him the definitive historical text on primitive canoe construction. The Montreal canoe depicted in the text was drawn from early French descriptions of the *Voyageur.*

"I looked at the picture and told them I would build it for them but it sure wasn't going to float," Hafeman laughs. Finally, one of the ancient *Voyageurs* was discovered at Sault St. Marie, Michigan, under water and filled with rocks in the traditional Indian way of preserving a bark canoe through the harsh northern winters. After studying it, Hafeman built a replica for the Historical Society. It is more than 36 feet long and can hold more than three tons.

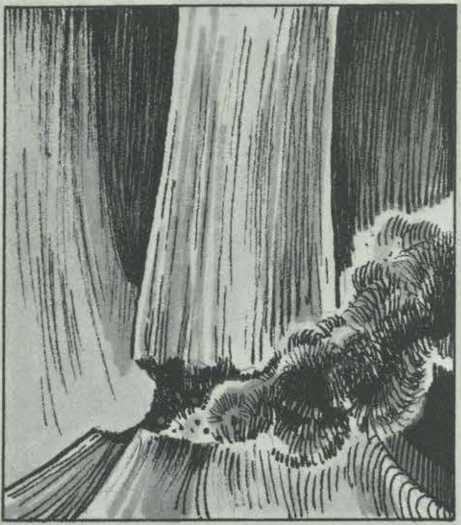
Hafeman tells me that he's glad I happened along, since there weren't any of his canoes in Florida.

I want to tell him how honored I am to have one, how important this is to me. I want to tell him how important it is that he has kept this art alive, and to thank him for that. I miss the chance as it suddenly begins to rain. The rain will shortly turn to snow. Words give way to action as we secure the canoe to my truck for the long trip back to Florida.

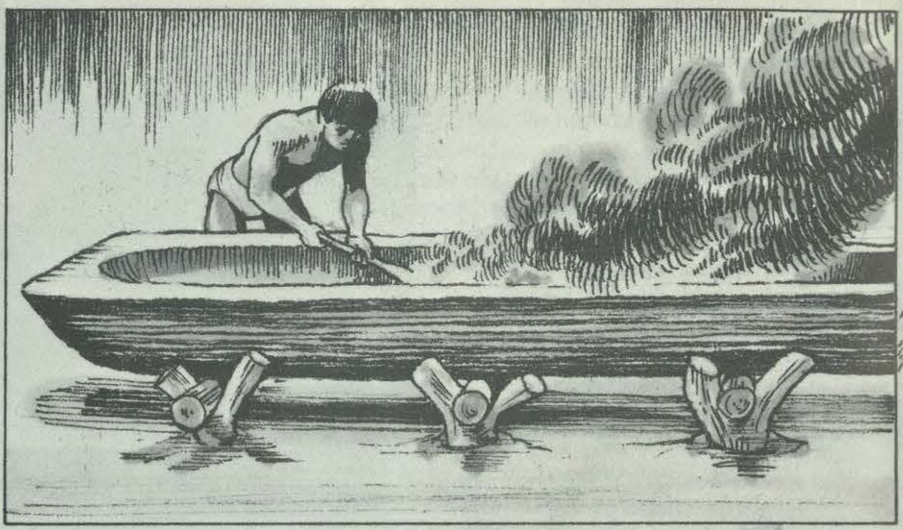
"Don't worry about the canoe," Hafeman tells me as I drive away. "It's sturdy."

William Hafeman is practicing the same tradition as the Indians did hundreds of years ago, making sturdy birch bark canoes. Sturdy, indeed. ☐

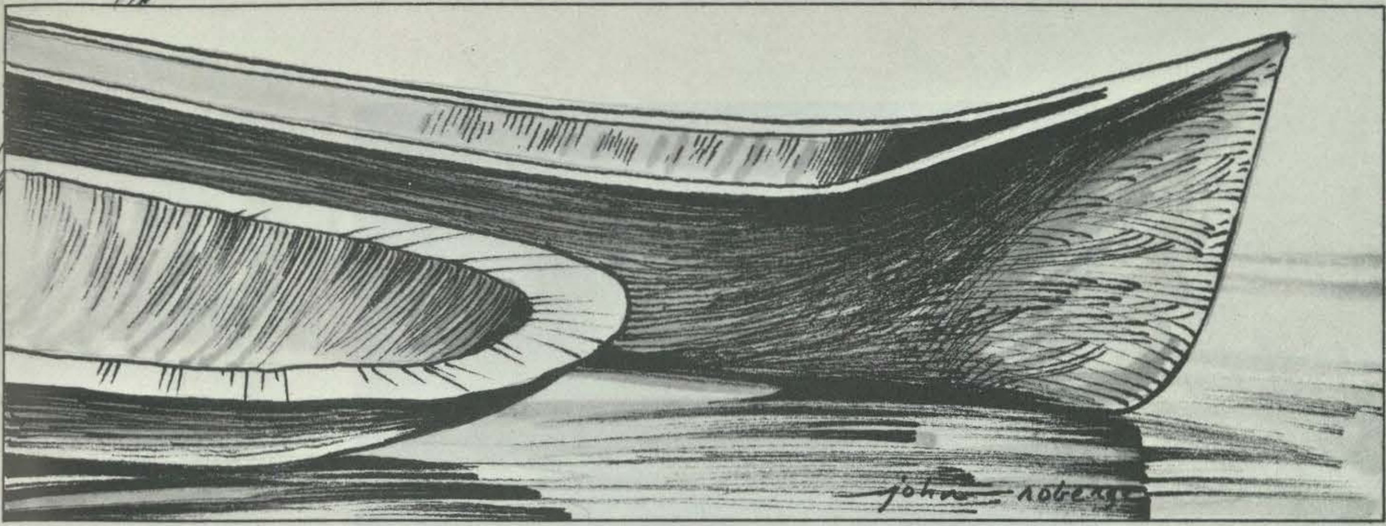
Editor's Note: Although there are other species of birch trees in Florida, the paper birch does not grow here. For canoeists wanting to float on one of Florida's scenic canoe trails in a birch bark canoe, they will need to get the birch bark from the North to make their own, or do as Dan Stengle did, and find a canoe maker.



A suitable cypress tree was usually chosen, then felled by controlled burning.

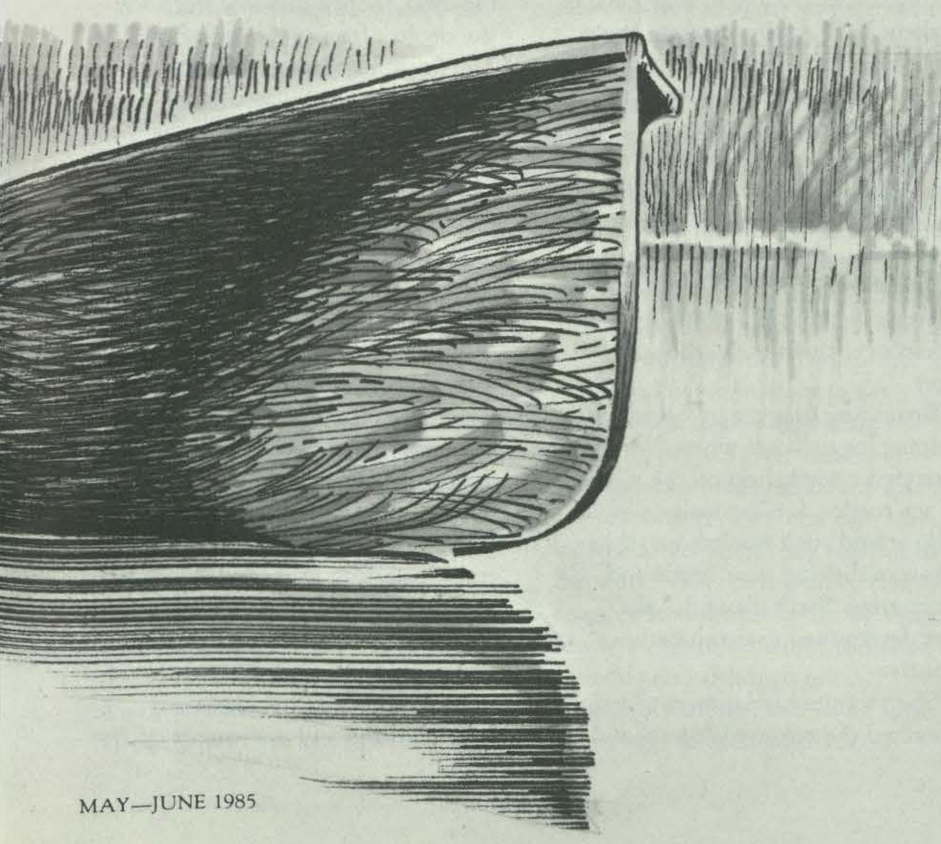


The basic form was then raised to a convenient working height and carefully burned and scraped with stone or shell implements to form the finished dugout canoe.



The use of stone and shell tools limited the shape to a more blunt form, at left; however, after the acquisition of metal tools from Europeans, the dugout canoe took on a sleeker form, at right.

The Florida Dugout Canoe

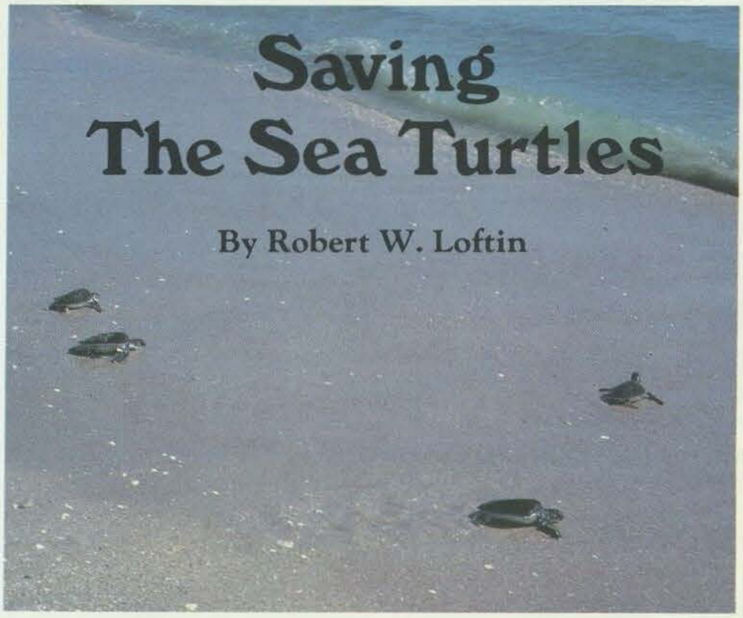


To the potential early American colonist or settler looking southward, the Florida peninsula presented a land criss-crossed with innumerable swamps and rivers. State-of-the-art transportation such as carts, wagons and even automobiles was severely impeded by these repeated water barriers well into the twentieth century.

Not so for the Native American population. The Timucua, the Mikasuki and the splinter groups of Creeks who would become the Seminoles, all mastered the craft of making dugout canoes and turned impediment into avenue with their wooden boats.

Dugouts were most often made from stout cypress trees. Cypress was chosen because of its strong resistance to decay. Transforming a cypress log into a boat, without the advantages of the metal tools Europeans would later bring, left the Native Americans to their own devices—fire, and shell and stone. They carefully burned and laboriously scraped out the logs until the hulls finally took shape. Dugouts made by this technique could last their owners through decades of service.

Pre-European dugouts tended to have roughly rounded ends, but with the advent of metal tools, hull shapes evolved to sleek, pointed bows which served very well for cutting through the dense swamp grasses of Florida's waterways. —John Roberge



Saving The Sea Turtles

By Robert W. Loftin

Ed Phillips-Photograph

There are many opportunities for individuals and groups to assist government wildlife agencies in the conservation of Florida's wildlife. Jeanne Spaulding came to be known as "The Turtle Lady of Ponte Vedra" by helping loggerhead turtles. The project she began in 1981 is still active, and each year, she and her associates have helped some of the loggerhead's eggs hatch, and assisted the hatchlings in making it into the sea. Here, the young turtles stand a chance of growing to adulthood.

Of five sea turtle species found around the coast of Florida, four are endangered. The loggerhead is presently threatened. Of the species which nest in this part of the world, loggerheads nest on both the Atlantic Coast and Gulf Coast of Florida. Spaulding's project has been in St. Johns County.

Sea turtles are reptiles, so they can't lay their eggs in water. Males generally spend all their lives in the water, but the females have to drag themselves up on to the beach to lay their eggs. Using their hind flippers, females dig holes in the sand, just above the high tide line, into which the white, spherical eggs are laid. They are covered after laying, with about three inches of sand often being deposited. Some 20,000 loggerhead nests per year have been found on Florida beaches in recent years.

An automobile or dune buggy running over a sand-covered nest can easily crush the eggs or compact the sand so much that the young hatchlings cannot dig their way out, even if they are lucky enough to hatch. If a nest does escape destruction by vehicles, and the young turtles do hatch, they have to make it back to the water to begin their hazardous life at sea. If there are deep tire ruts in the sand, the little turtles often get trapped. The ruts to them are like canyons they can't cross. They usually emerge at night and head for the water, but if they get caught in a tire rut until dawn, they become an easy meal for any passing gull. If a predator doesn't get them early, the sun will later.

Spaulding first got involved with helping loggerheads when she attended a workshop on the plight of sea turtles. Unlike many people who attend such workshops, then go away shaking their heads and muttering, "Isn't it awful," she was determined to do something positive.

She recruited volunteers to help, obtained the required federal and state permits, sought help from government agencies and set up one of the most successful loggerhead turtle hatching operations in the world. Since 1981, this project has released more than 20,000 young loggerheads back into the surf. By getting the little turtles through their first dangerous two months— between laying and hatching—their chances of surviving to breeding age increase from less than one percent to about ten percent.

Spaulding and her associates have received cooperation and help for the project from a variety of people. The St. Johns County Sheriff's Department has assisted with reports of nesting turtles. When they report a nest, Spaulding either goes or sends somebody—day or night!

She has become well known among professional turtle biologists because of the very high rates of egg hatching her methods have achieved. She thinks the secret of her success lies in the care given to the eggs. When fresh eggs are first removed from the nest, care is taken not to rotate them in any way. Unlike bird embryos, turtle embryos attach to the side of the shell. Birds *must* turn each egg over frequently during incubation or the embryo will die, but the opposite is true of turtles. Turtle eggs can hatch without any movement of the egg at all, so if the egg is rotated during incubation, the embryo will die.

When a nest is located, the eggs are transferred first to a plastic bucket. Eggs have to be kept moist or they will dry out, so they are watered about every three days. Holes in the bottoms of the buckets provide drainage. Salt water will crystalize and kill the eggs, so fresh water is used. Each bucket is filled with between 70 and 120 of the round, ping pong ball-sized white eggs. Each bucket is carefully tended and watched throughout the 60 or so days of incubation.

Many people think the sun incubates the eggs but this isn't true. The major source of the incubation heat comes from the natural metabolic processes of the developing eggs themselves. Nevertheless, the place where the eggs are kept is a warm room.

When the eggs begin to hatch in the buckets, nothing is done immediately. In natural nests, the eggs hatch over a period of about three days, and during this time, the little turtles scramble about and climb over each other under the sand. They breathe air that filters down through the loose sand.

As the young turtles thrash about in natural nests under the sand, they gradually shift the empty egg shells down to the bottom of the hole. They haven't yet had their first bite to eat, so they live off the energy stored in the yolk sac. At hatching, this structure is partly within their shell and partly protrudes through the bottom of the shell. In the artificial hatching operation, the young are allowed to mill around in the buckets until the yolk sac has been fully absorbed into the body and the plastron (lower shell) closes. Then they are transferred to a plastic foam cooler and carried to the beach for release.

In natural nests, emergence usually takes place at night. The young turtles wait just below the beach surface until the temperature drops, then they erupt. If there are lights from houses, roads or condominiums near the beach, the emerging turtles sometimes head in the wrong direction, toward the light, and never make it to the ocean. Here again, Spaulding's hatching project gives the youngsters a break, since the turtles are released at dawn and carefully watched over until they make it to the water. Scientists believe that females are imprinted during those few minutes to return to the same general area, although not necessarily to the exact same spot, to lay eggs in their adulthood.

Jeanne Spaulding-Photograph

Atlantic loggerhead turtle

Because they care, Jeanne Spaulding and her associates have spent countless hours and quite a bit of their own money over the last five years helping the little loggerheads make it. This project is an example of what individuals can do if they really care enough. Their example has been an inspiration to many others who have helped in so many ways. For example, a retired FBI agent purchased a three-wheel vehicle for them to use for their beach patrols. Government agencies have been generous with expert advice and the St. Johns County Sheriff's Department has cooperated by passing along nesting information. Many volunteers have helped out by patrolling the beaches at night, looking out for nests and poachers.

Poaching of sea turltles is still a problem in St. Johns County and other locations in the state. Some 20 nests were robbed in St. Johns County last year. Spaulding has sometimes feared for her personal safety while on the beach alone at night.

One continuing serious problem with adult sea turtles is the large number which get caught in commercial shrimp nets and subsequently drown. For several years, the National Marine Fisheries Service has been working on a device which would alleviate this ▷

problem. At first called a "turtle excluder device," they now call it a "Trawler Efficiency Device," or TED for short. The model they are now using consists of a steel grill in back of the net, which shunts turtles out through a trap door in the net.

The much smaller shrimp easily pass through the grill and collect in the back of the net. The excluder also passes large fish out of the net. This actually improves the fuel economy of the shrimp boats, since they are not dragging so much of the extra weight of turtles and trash fish through the water. With the price of fuel being higher than ever today, the excluder can be an economic advantage to the shrimpers, as well as a life-saving device to the turtles.

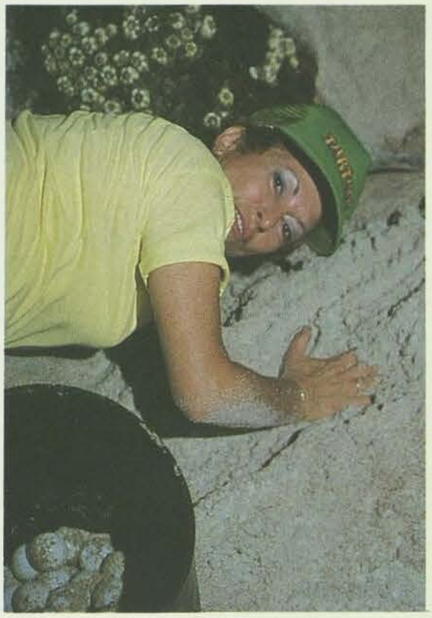
Acceptance among commercial shrimpers has been somewhat slow, however, even though the Service purchased 200 excluders and gave them to shrimpers, to demonstrate the practicality of the device. Some shrimpers have become enthusiastic about the program, but many others seem to be indifferent or unconvinced.

Since 1983, Spaulding has been less active in the field phase of this project, but her associates—George Baker, Tom Watson, Margaret Jimeson and Laurie DeWeese—have carried on, patrolling 12 miles of St. Johns County beach from May until September. In 1984 alone, this team hatched and released 7,867 young loggerheads!

Spaulding continues to work to help these sea turtles by advising developers on how to build near the beaches with minimum impact on nests and young. With people like her to care, these sea turtles may be around for a long time to come.

Identifying Florida Sea Turtles

Florida's five species of sea turtles can be identified by the characteristics of the carapace (upper shell), plastron (lower, or "belly" shell) and other features such as color and shape of various body parts.


George Baker-Photograph

The females lay between 70 and 120 round, white eggs.

Loggerhead turtles have thick shells and very large heads with two pairs of scales on top of the head in front of the central plate between the eyes, and five or more large scales alongside the central row of scales on top of the carapace. Their color is somewhat reddish and adults attain shell lengths of three or more feet. The plastron and the lower surfaces of the neck, legs and tail are yellowish in color.

Hawksbill turtles have overlapping scales on the carapace. The front of the head is "beak" shaped. There are two pairs of scales on top of the head in front of the central plate between the eyes. The shape of the shell suggests a heart or shield. Hawksbill adults are comparatively small, usually not exceeding two feet in carapace length. The scales of the carapace are overlapped and the head scales are brown, bordered in yellow. The color of the carapace is reddish-brown, and often flecked or splotched with other shades. The plastron is yellow in color.

Ridley turtles have big heads and a short, gray, nearly round carapace. Adults rarely exceed two feet in shell length. A single large scale covers the lower jaw. There are five plates along each side of the central row on top of the carapace. The lower parts are light in color.

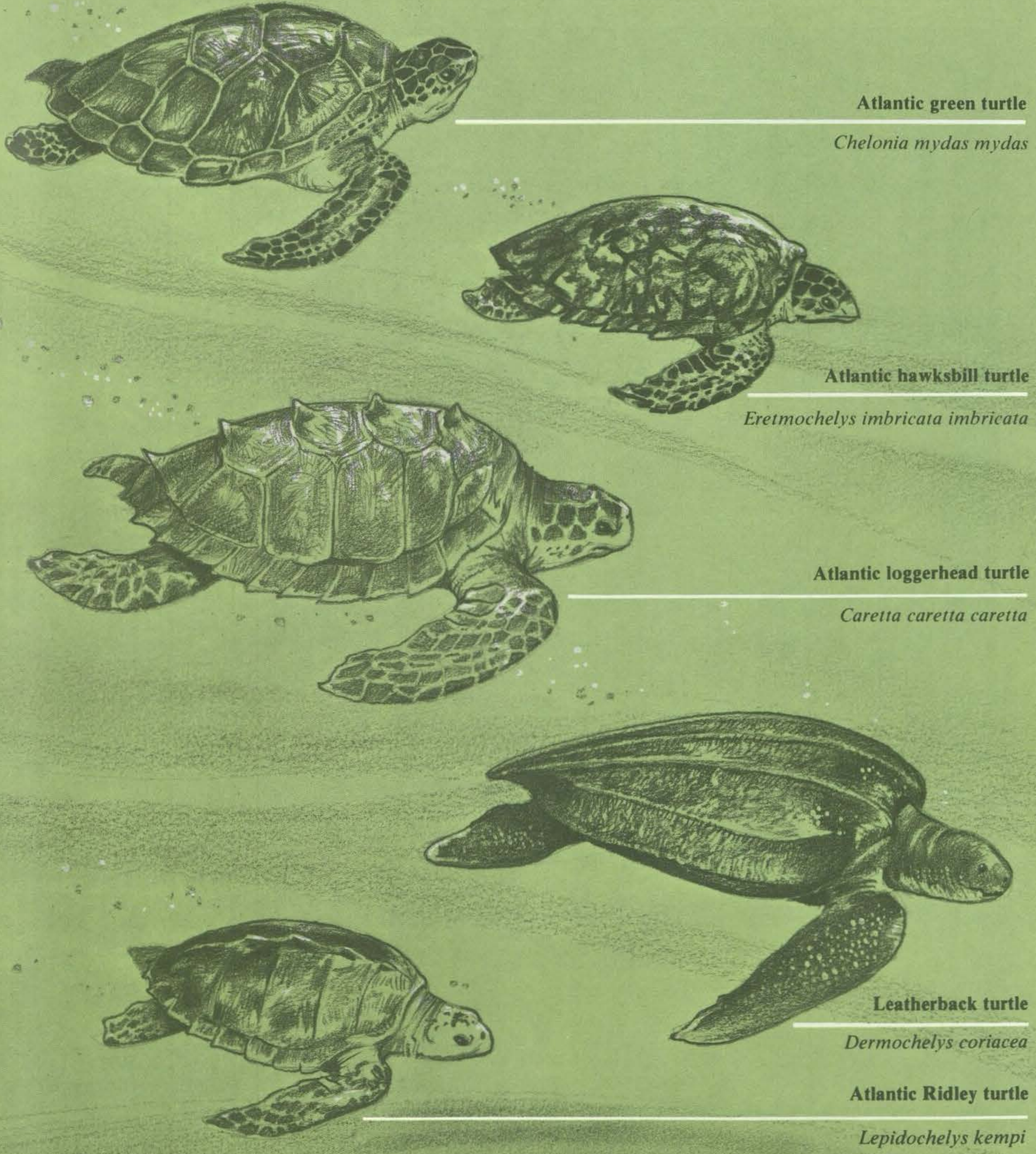
Leatherback turtles have ridged, leathery shells. The young show plates in the carapace, but adults usually do not. There are seven longitudional ridges down the carapace and five on the plastron. The upper jaw is notched and the overall coloration is black (upper parts) and white (lower parts). Adults generally average five to six feet in carapace length.

Only 30 or so leatherback nests are found in Florida each year, and most of these are on Hutchinson Island along the southern Atlantic Coast. Hawkbills rarely nest in Florida, and then only in the southernmost portions of the state, including the Florida Keys. The hawksbill has become endangered in large part because of its shell, which is manufacturered into beautiful "tortoise-shell" items.

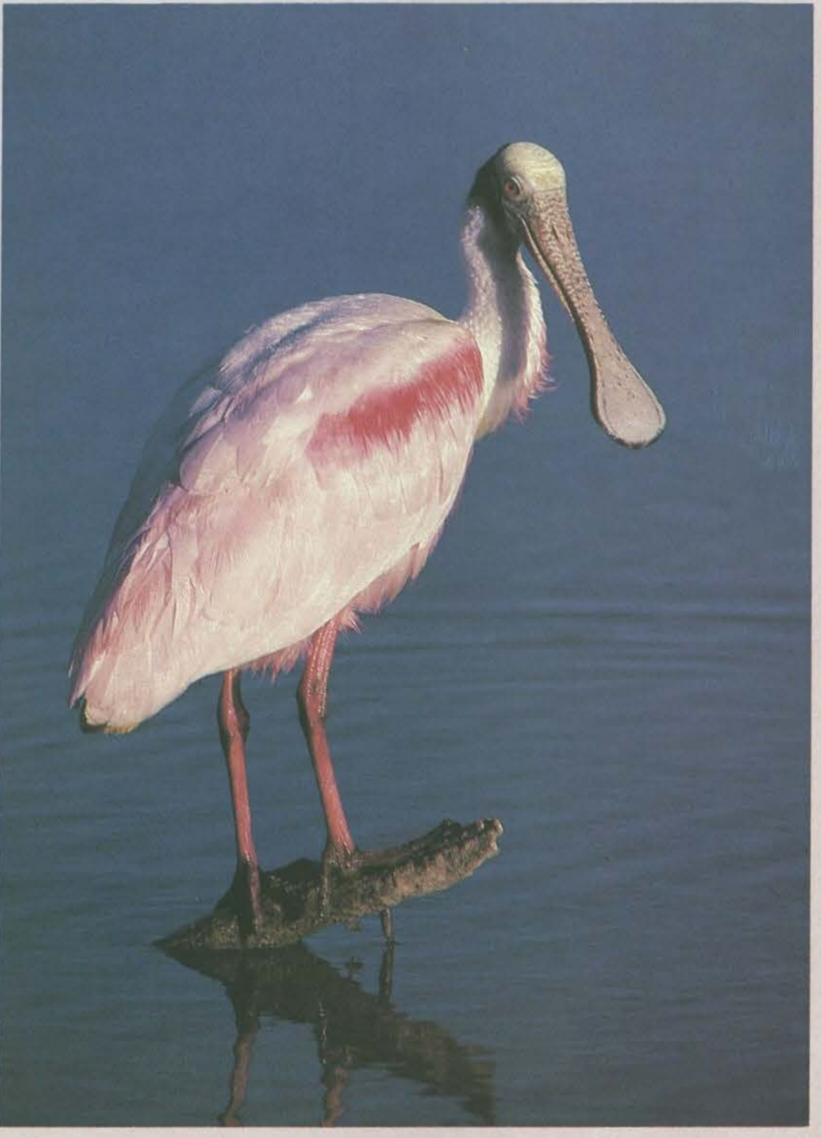
The green sea turtle, so named because the color of its body fat, is prized as the meat for turtle soup. Of the species listed here, its meat is the best flavored because of its vegetarian diet. This has resulted in populations becoming severely depleted, although the green sea turtle is the second most common sea turtle found in the coastal waters of Florida. More than 200 green turtle nests are found each year, mostly along the mid-Atlantic Coast.

Ridleys do not nest in Florida, but are sometimes seen offshore. All these species, and the loggerhead, are found in both the Atlantic Ocean and Gulf of Mexico. Federal and state laws now fully protect all sea turtles in the United States. They can no longer be taken legally. ☐

Sea Turtles


Atlantic green turtle
Chelonia mydas mydas
Atlantic hawksbill turtle
Eretmochelys imbricata imbricata
Atlantic loggerhead turtle
Caretta caretta caretta
Leatherback turtle
Dermochelys coriacea
Atlantic Ridley turtle
Lepidochelys kempi
john rotage

Delicate Balance



Michael Francis-Photograph

Species: Roseate spoonbill *(Ajaia ajaja)*

Florida Status: Species of Special Concern

The roseate spoonbill *(Ajaia ajaja)* is the only member of the avian subfamily Platateinae which occurs in the Western Hemisphere. The body and wings are pink to carmine in color, with the head being naked of feathers. Indicative of its name, the bill is long and "spoon" shaped. The spoonbill's length is 30 to 40 inches. It has a wingspan of about 52 inches and weight of about three and one-half pounds. The sexes are similar in appearance.

The roseate spoonbill ranges from the southern United States to Argentina and the West Indies. In the early 1940s, their breeding range in the U.S. was restricted to 40 to 50 nests at Florida Bay. However, during the last 40 years, a 50-fold increase in number has resulted in their breeding range extending up into the Tampa Bay area along Florida's western Gulf Coast and to Brevard County along the Atlantic Coast.

Spoonbills also breed in several colonies in Texas and Louisiana. During postbreeding dispersal, from summer until winter, spoonbills are found along the Gulf Coast up into the lower Mississippi River Valley and along the Atlantic Coast to South Carolina.

While spoonbills can be found feeding and loafing in a variety of freshwater and marine habitats, their breeding colonies are restricted to marine environments. In Texas and Louisiana, spoonbills nest on dry, natural and manmade coastal islands in both upland and maritime vegetation. In Florida, all known colonies occur in red, black and white mangroves.

First breeding by spoonbills probably occurs at three years of age. Breeding commences when the birds arrive in flocks during January (south Florida) through March (central Florida) and the colorful birds spend long hours loafing in trees. Pair formation begins with the male's courtship displays and his defending a territory. The female is eventually allowed on the territory, where multiple matings occur during the egg-laying period.

The male brings most of the nesting material to the female, which does most of the nest building. The nest is a bulky structure of twigs lined with greenery. The dull white eggs are laid at one- to two-day intervals. Incubation lasts about 23 to 24 days. The clutch size averages three eggs. Both parents share in incubation and in feeding the young. Spoonbill chicks require six to seven weeks to fledge.

Spoonbills use their specialized bills in side-to-side motions while probing for food. Prey items consist mostly of fish, crustaceans, insects, mollusks and some vegetative matter.

—James A. Rodgers

Handmaking the Old Favorites

By W. Horace Carter

Red cedar wood from the Carolinas is making a name for itself in central Florida as 71-year-old Max Clarke of Cross Creek makes replicas of the old topwater Devilhorse, Ma Scooter and other lures. He catches more largemouth bass on his homemade plugs just fishing after supper than most anglers land all day. He coaxes big fish to strike with an enticing likeness of a crippled minnow on the surface—twitching, wiggling and squirming in the open water surrounding hydrilla.

When Clarke first began manufacturing his own topwaters in his little shop behind his home beside Cross Creek, he was strictly experimenting. On a lathe, he turned the bodies of the lure four inches long, painted the cedar wood gold, green and black, then dabbed on a yellow eye with a black pupil. He attached two sets of No. 4 treble hooks. He then tested his craftsmanship in the 8,300-acre Lake Lochloosa.

"When I started casting that topwater around the hydrilla and flicking it with the rod tip," Clarke says, "the bass almost took the lure away from me. I knew I had unlocked a secret."

When Max Clarke began, he was strickly experimenting.

The cedar wood Clarke uses is heavier and floats a little deeper under the surface than the plastic bodies of most modern topwaters and the bass seem to love his combination of colors. Since that first day, Clarke has spent many hours making plugs and other artificials.

"I experimented in the old trial and error tradition with colors and shapes," Clarke explains. "Basically, what I began with in 1982 is what I am successfully landing bass with now. I shortened the body to 3-¾ inches, but the general idea is the same."

Although many avid bassers would love to get their hands on one of his lures, Clarke says, "I just make them for myself. I've given a few of them away to friends and neighbors, and two Missouri men who watched me catch a bunch of bass one day came by and wanted my lure so badly that I did sell each of them one ▷

for $4. But, they'd probably cost me $10 each, even if I was working for minimum wage!"

Clarke had early exposure to art. His mother and sister were artists. It takes artistic ability with a paint brush, and an eye for blending colors, to come with a piece of cedar that is life-like enough to bamboozle a bass.

Just how does Clarke fish his homemade topwaters?

"I go into Lake Lochloosa or Orange Lake after supper, late in the afternoon. In the summer that's about six o'clock. It takes me no more than four or five minutes to get out a half-mile or so from shore, where hydrilla islands cover much of the surface.

"Then, I put out my trolling motor, move along slowly, and begin casting my lure near the hydrilla cover. I let it hit, pop to the surface a moment, then begin flipping the rod tip. That yanks the bait along a foot or two each time. I keep doing that twitching all the way to the boat.

"Sometimes I get strikes as soon as the bait hits the water. Sometimes I've yanked it a few yards from the cover before the bass hit, and at other times I catch bass just an arm's length from the boat. You can never tell just when a bass will hit it."

Clarke has enjoyed some great fishing using his lures. He told of one very special time. "During a hot week in July 1983, my 13-year-old grandson, Warren, was visiting. I took him fishing on Lochloosa three late afternoons in a row. Now it sounds like a fairy tale," Clarke admits, "but using my little lures and flipping them on the surface around the hydrilla, we caught 73 bass during those three fishing trips.

"With those 73 fish we landed, we missed many others. Warren landed a nine-pounder. We had two seven and one-half pounders and more than 20 others that weighed between five and six pounds. They weren't your normal schooling-size bass either!

"Sometimes I get strikes as soon as the bait hits the water."

"On top of that," Clark continued, "we hooked the largest bass I've ever seen. She came right up to the boat, and I saw her well. I believe that fish weighed more than 17 pounds.

"I sure would like to have landed a record bass out of Lochloosa on my own bait, but she pulled the hooks out when she went down, and we didn't see her again.

"I don't believe there's a greater thrill for a fisherman than to make his own lure, then prove it on his favorite lake or stream. You know you've challenged the species with your own invention." Clarke says.

"I turn most of my fish loose to strike another lure on another day. Just to get him to the boat on a piece of wood you've made to look like something edible is rewarding," Clarke adds.

Explaining more about his technique for building the topwaters, Clark says "I make my lures with a little flatter belly than most of the commercial lures have and ▷

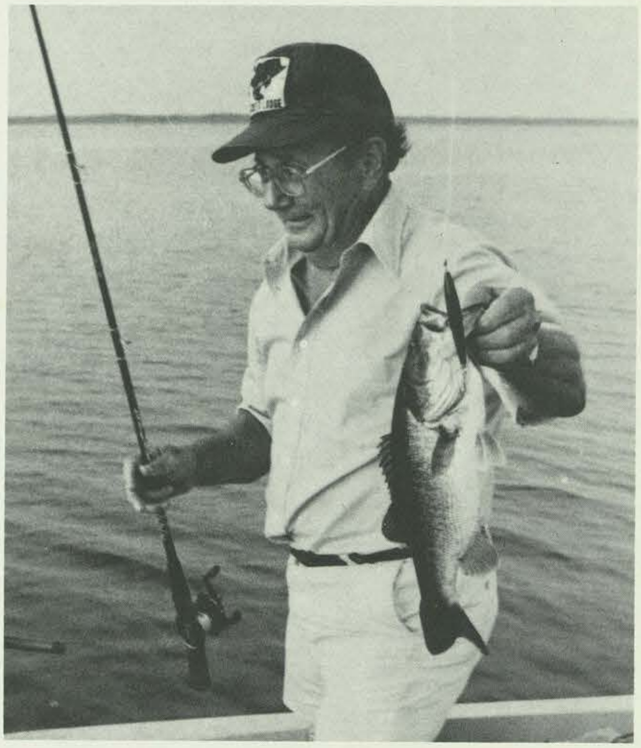
John Waters Jr.-Photograph

I dab some tiny 'blisters' on the sides by dipping a tiny paint brush handle into the paint, then touching it to the lure. This is done after I've spray painted it with gold, green and black paint. I let the lure dry one day between each color of paint.

"I install a single propeller on the tail end, again like the Ma Scooter. I seem to have better success with the single prop than I do with one on each end, but maybe it's just because I have greater confidence in the single propeller lure.

"The first time I started fooling around with a homemade lure, I simply repainted an old Devilhorse that had caught so many fish the paint had been worn off. It had caught plenty of good bass. I painted it gold, green and black—the same colors I use today and caught more fish on it.

"After that, I decided if I had a lure that was similar in shape, a little shorter, heavier and with a flatter belly, it might be even better, so that's what I build now. It's proven to be attractive to lunker bass around here, and I'm satisfied I have really come up with a lure that works.



W. Horace Carter-Photograph

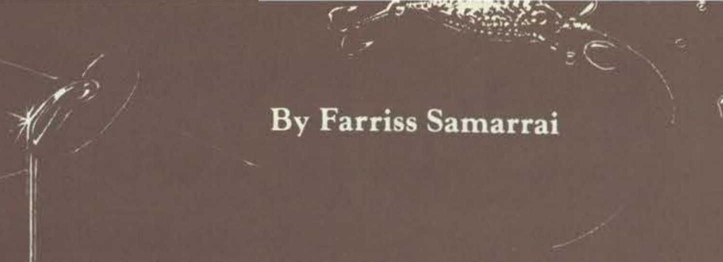
Other topwaters are successfully fished, but Clarke has confidence in the plugs he makes.

One of Clarke's favorite experiences fishing his lures happened on Lake Lochloosa a couple of summers ago. A man from Kentucky was with him, and Clarke put him right on a hole where he knew a big, old bass lurked. He handed the man one of his plugs and showed him exactly where to flip it. The visitor made accurate cast after accurate cast, into the right spot, but nothing happened.

Eventually, the Kentuckian became a little impatient and skeptical as to whether there really were any bass in the lake. So, Clarke tossed it into the same area, flipped it once and the water exploded. He boated an 8-pounder. The man just couldn't believe it.

Next, Clarke's friend tried again. Using one of Max's backyard workshop topwaters, he underhanded it 40 feet into the same niche in the hydrilla cover and twitched it one time. A lunker sucked in the lure. He fought her for a few minutes, then lifted a 12-pound, 9-ounce beauty into the boat. That fish now graces his den wall in Kentucky. ☐

Choosing The Best Rod



By Farriss Samarrai

When shopping for a fishing rod, the average angler will search the stores for reasonably priced equipment. He will pick up a name-brand rod, admire its colors, waggle it a few times and, if it feels about right, buy it. But later on, he may find that the rod that felt so good in the store does not perform so well on the water. Maybe next year he'll buy another.

Selecting a fishing rod which performs well is not complicated, but it does require more than simply shaking a rod and liking the looks of it. No rod, whether made by a major tackle manufacturer or not, will cast properly if it is built of low-quality materials and with poor craftsmanship.

Shop around. From tackle shop to department store, there is a lot of variation in price and selection. An inexpensive rod is not necessarily a bad one, and some lousy rods are overpriced. The smart rod buyer knows the construction of the equipment before laying out money for it.

Today, almost all rod shafts are made of synthetic materials. Fiberglass is the most common material and, when correctly processed, it is excellent—lightweight, strong, responsive and relatively inexpensive. Solid fiberglass rods are the least expensive, but while very durable, they lack the action and sensitivity of the hollow, thin-walled fiberglass shafts. Solid glass is best for heavy boat rods where strength is more important than sensitivity.

The most costly rods are those made with graphite or boron shafts. These rods generally are stronger and more sensitive in action than even the best fiberglass rods, making them a particularly good choice for fly fishermen. Their high cost, owning to production technique, is the main reason they are still outsold by fiberglass rods.

There are four main actions for all types of rods. Actions vary according to the degree of curvature of the rod's shaft when it is bent. An "extra fast" rod will have most of its bend in the thin, tapered, upper one-quarter of the shaft. A "fast" rod will bend mainly in the upper one-third of the shaft. "Moderate" rods bend mostly in the upper one-half of the shaft and "slow" rods bend in a progressive curve from tip to butt.

The best choice of action type depends upon what type of fishing you're doing. If you're after larger fish, using heavy lures and terminal rigs, a slow or moderate rod is best because it will provide backbone. Extra-fast and fast actions are better suited for casting light lures or bait for smaller fish. The fast actions provide delicate, accurate lure presentations with greater distance capability.

For fishermen who need two-piece rods for break down and storage purposes, most modern rods now have fiberglass or graphite ferrules rather than metal ones. These ferrules eliminate the dead space formerly found in two-piece rods and the new fiberglass or graphite ferrules do not corrode or freeze up—therefore they don't need to be lubricated.

When buying a rod with metal ferrules, check closely to be certain they have been cemented tightly to the rod halves.

The most commonly used materials for reel seats are chromed brass, anodized aluminum and, lately, graphite with stainless steel hoods. Each type is strong and durable. The better ones have two ring nuts—rather than just one—for locking the reel firmly to the seat.

There are some rods on the market with plastic reel seats. These are rods in which the manufacturer is skimping on quality. The plastic hoods on these seats split fairly easily under pressure, making the entire rod an inferior choice.

Most modern handles are made of cork or foam rubber. The best cork grips have very few "pits" or small, resin-filled holes. The new synthetic grips have become quite popular and are more durable than cork, which is easy to gouge. Make certain that both grips and real seats are tightly glued to the rod assembly.

Before buying a rod, always "sight up" the line guides to make certain they are aligned with one another and the tip guide. Also check the guides and tip for nicks and grooves which could fray the fishing line that passes through them.

The guides should be spaced so there is an even distribution of line stress for the length of the rod when the shaft is bent. The line, when threaded through the guides, should closely follow the bend of the rod and not angle sharply from guide to guide. Depending on rod length, there should be four to five guides on ultra-light spinning rods, five to six on medium-weight spinning rods, about five on bait-casting and seven to ten on fly rods. A basic rule of thumb is that there should be one guide (discounting the tip) per foot of rod length; that is, a seven-foot rod should have about seven guides.

Guides are usually made of hard-chromed stainless steel, tungsten carbide or chromed brass. Many of the better rods now have ceramic "speed" guides. These guides have a hard but brittle, smooth ring set inside a shock-absorbing outer ring. Ceramic guides, because of their smoothness, reduce line/guide friction and increase casting distance.

All guides must be securely fastened to the rod with tight, gapless wraps of varnished silk or nylon thread. For appearance, the varnish coat should be smooth and flawless for the length of the rod.

These tips should help you make a better choice when you buy your next fishing rod. ☐

A Stick You Can Live With

By Myra Hinson Jeffres

The first thing I do when I go for a walk is look for a big stick. After all, everyone knows you can get an attacking dog's attention with a big stick, and what rattlesnake can survive a strategically placed whack of a stick as it coils for the big kill?

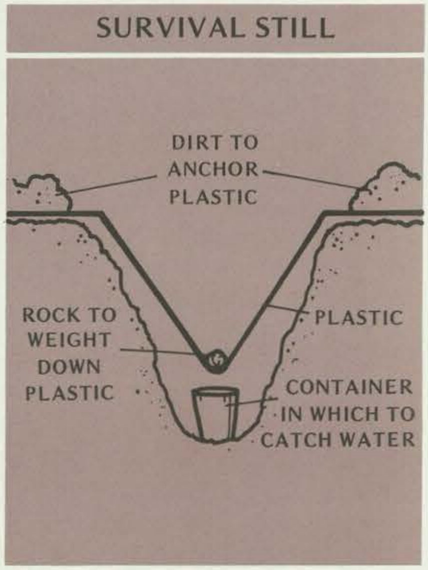
As a volunteer instructor with the Commission's Hunter Education Program, I teach my students the importance of carrying a survival kit with them when they are hunting, fishing or otherwise enjoying the outdoors. Many of my students, however, do not hunt or fish; but, most of them do hike or camp. Like me, they also pick up a stick to give them a feeling of security or protection.

Earlier, when I emerged from the woods after a hike and had scratches from encounters with briar patches, I carried nothing to doctor myself with. Since then, I decided to build a *survival walking stick kit.* I began by hollowing out the upper end of the stick just enough for a small compass to sit on top. Placing the compass at this height put it at my eye level.

The next section of the stick was left untouched since this was a comfortable place for me to grasp it. I dropped down six inches from there and, with a wood-burning set, drew a picture of a survival water still to remind me how to get water in a survival situation.

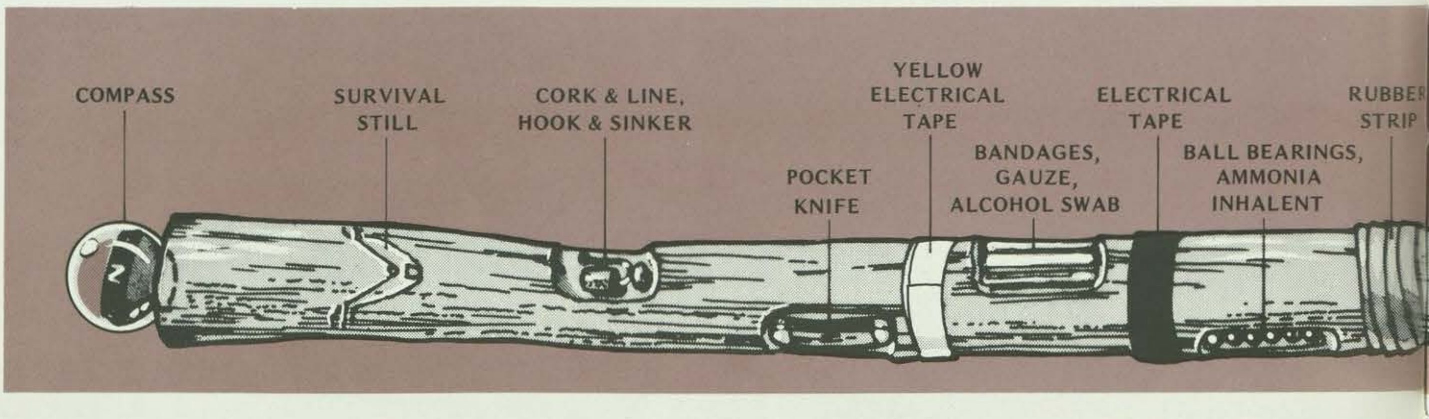
In order to collect ground water in this way, you dig a hole approximately two feet wide and three feet deep. Then you place a container to catch the water in the bottom of the hole. Next, a piece of clear plastic sheeting is suspended above the container, anchored around its edges with dirt. Next, a small rock is placed in the center of the plastic to weight it down and make the plastic form a cone. Heat from the sun then passes through the plastic sheet and vaporizes the ground water in the soil surrounding the hole, causing condensation on the underside of the plastic sheet. This then drips off the bottom of the cone into the collection container below.

Below the drawing of the survival still, I carved out 11 small compartments around the stick, staggering the hollowed out spaces so as not to weaken the stick. It was in these hollows that I placed my survival equipment. The first hollow holds a small tube of ointment for cuts, burns and abrasions. Below the first compartment, I wrapped several layers of electrical tape. The next three spaces are side by side. These hold fishing tackle. One contains fishing line and a cork, another compartment is filled with assorted fishing hooks and the third is filled with lead sinkers.


SURVIVAL STILL
DIRT TO ANCHOR PLASTIC
ROCK TO WEIGHT DOWN PLASTIC
PLASTIC
CONTAINER IN WHICH TO CATCH WATER

The next hollow houses birthday candles and waterproofed strike-anywhere matches. When in the wild, waterproof matches are a necessity in case of damp weather or high winds. It makes it easier to light a campfire by first lighting a candle. A match can be extinguished too easily.

The next recess is large enough to hold a small pocket knife while the compartment below it contains a tiny sewing kit with thread, needles, safety pins and buttons. Below that is the largest compartment. It holds


COMPASS
SURVIVAL STILL
CORK & LINE, HOOK & SINKER
POCKET KNIFE
YELLOW ELECTRICAL TAPE
BANDAGES, GAUZE, ALCOHOL SWAB
ELECTRICAL TAPE
BALL BEARINGS, AMMONIA INHALENT
RUBBE
STRIP

assorted sized adhesive bandages, gauze strips, alcohol prep swabs, first aid cream, burn ointment and insect repellant. The next compartment stores just enough emergency rations for a person to get by in time of desperation. A package of salt is essential in case of heat exhaustion; sugar gives quick energy; gum helps ward off hunger a little longer and a few boullion cubes make a somewhat nourishing drink if needed, in the event I should need more sustenance than sugar for quick energy.

Next to the food kit is a recess which holds an antiseptic for scrapes and cuts, and several fishing flies. The hollow below that one holds a large sterile gauze pad, an ammonia inhalent, cotton and six ball bearings. The ball bearings can be used as sling shot ammunition. I could fashion a sling shot of out of a strip of rubber, wrapped securely around the stick, and a forked stick cut with the survival knife described earlier.

The final recess holds thin nylon cord that can be used for a number of things—to tie a splint for a broken bone, to tie to a rabbit carcass in a tree to keep it from wild animals or perhaps to form a snare to catch small game. After filling each compartment with supplies, I used a strong, clear strapping tape over each recess to waterproof the supplies, and keep them secured in their individual compartments.

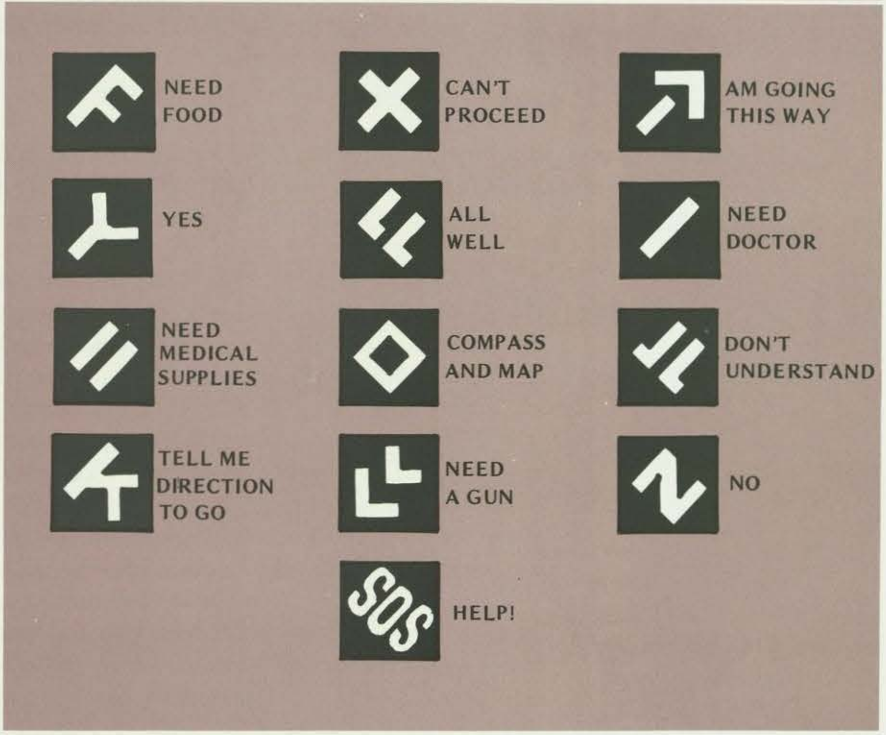
Below the last compartment, I still had 12 inches before I ran out of stick, so I wrapped a good bit of adhesive tape around the base of the stick. The adhesive tape could secure a splint or could anchor tree limbs together for a shelter. I also wrapped more black electrical tape below the adhesive tape in case I needed to waterproof supplies or leave a ground-to-air rescue signal on a tree or rock.

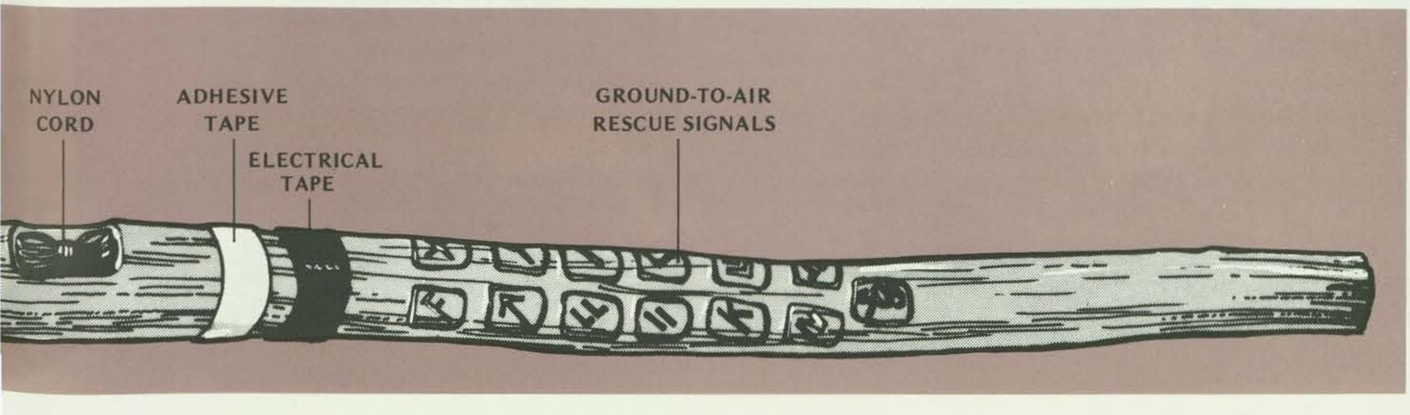
Finally, I once again took out the wood-burning kit and carved out 13 standard ground-to-air rescue signals. I could see myself lost in the woods, about to panic and not being able to remember any of the symbols, so I figured I had better have them written down for permanent remembrance.

I am not suggesting that doom lies in wait around every bend in the trail, nor do I believe maurauding animals stalk us, waiting to maim and destroy us while we destroy their habitat. But I am practical enough to realize that accidents do occur while in the outdoors. We need to teach ourselves mental self control first, should we become lost, and we should always be prepared for the unexpected accident.

While I advocate packing a personal survival kit whenever boating, hunting, fishing or hiking, I realize that when I go for a walk, it's not always convenient to carry such a kit. But now, I reach for my "survival stick" on my way out the door. It's strong and sturdy, and it comes equipped with its own emergency supplies. ☐

GROUND-TO-AIR RESCUE SIGNALS





It's The Law

By Dave Swindell

What laws protect panthers in Florida?

The Florida panther is one of about 30 subspecies of a group of cats known variously as "panthers, cougars or catamounts.". These cats were historically found throughout the United States, northward to Hudson Bay and as far south as Patagonia (southern South America). All of the panthers or cougars in the United States are rather similar in appearance, and the various subspecies are indistinguishable to the average person.

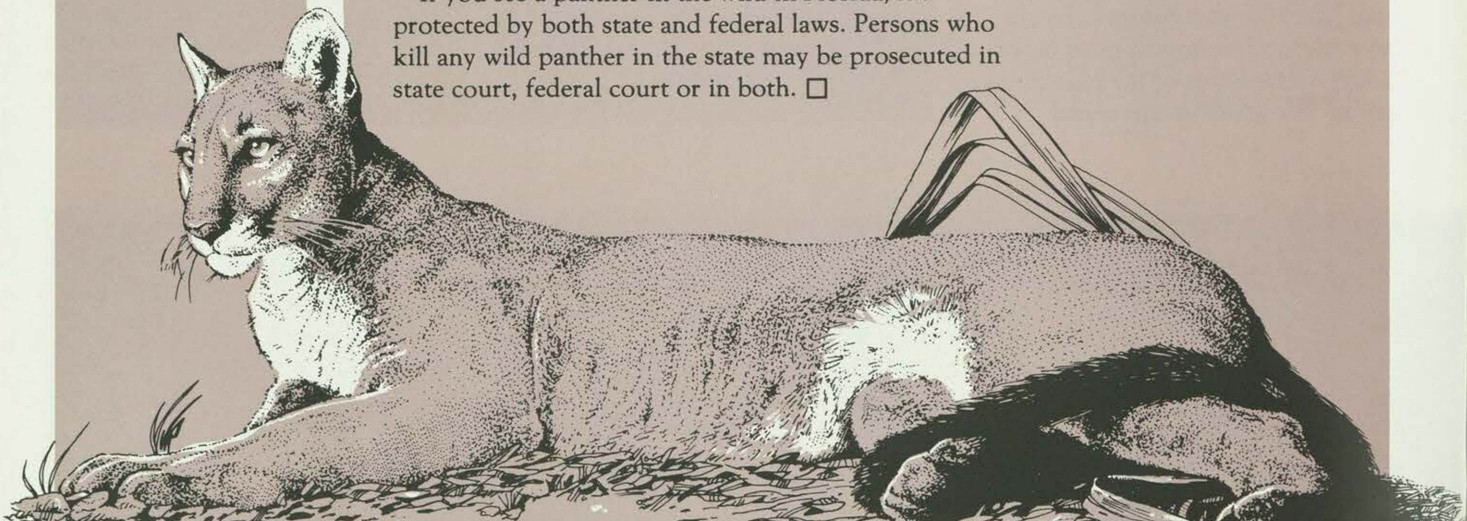
Today, the small population of panthers found in Florida is regarded as being the only survivors of this magnificent cat to be found in the eastern United States. In the West, the cougar is holding its own in many remote areas of low human encroachment.

The laws protecting the Florida panther and the penalties for violating each:

1. Commission Rules 39-27.011 and 39-27.03 forbid the killing of any panther or any other endangered species. The penalty is up to 60 days in jail and/or a $500 fine.
2. Florida Statute 372.671 prohibits killing a Florida panther or any other subspecies of panther found in the wild in this state. The penalty is up to five years in prison and/or a $5,000 fine.
3. Federal law 16 USC 1531-1543 (known as the "Endangered Species Act") prohibits the killing or possession of a Florida panther. The maximum penalty is one year imprisonment and/or a $20,000 fine.

Full protection is also accorded any panther or cougar found in Florida, regardless of its origin, because of the similarity of appearance of all the subspecies. Some "western cats" may have escaped from exhibits or zoos or have been illegally released into the wild.

If you see a panther in the wild in Florida, it's protected by both state and federal laws. Persons who kill any wild panther in the state may be prosecuted in state court, federal court or in both. ☐



Hunter Education News

By Lt. Charles Higman

An annual event on the Commission's Hunter Education Program calendar is the statewide workshop held in Ocala. This meeting is primarily an in-service training session for the state's approximately 500 active volunteer Hunter Education instructors, but it also provides an opportunity to thank these dedicated individuals.

Early last March, 150 instructors from as far away as Key West and Pensacola gathered in Ocala for two days of education and recreation. The academic agenda provided information about endangered and threatened species of wildlife. Informative presentations were given by several foremost authorities in these fields, including endangered species coordinator Don Wood and biologists, Steve Nesbitt, Paul Moler, Dave Maehr and Chris Belden.

These biologists are all actively involved in specific research projects relating to various types of wildlife which are on the state's list of endangered and threatened species. Bald eagles, reptiles, bears and panthers were all discussed. The speakers addressed the present status of these animals and provoked questions as to what future they have in a state which is experiencing an influx of 6,000 people per week. Vic Heller, chief of the Nongame Wildlife Program, explained the plans and goals for this new program.

The lectures were highlighted with recreational activities which were both physically and mentally stimulating for instructors. Educational games such as "Oh, Deer" and "Build a Bird" required participants to use their knowledge of wildlife habitats and basic wildlife management techniques.

A five-acre field arranged for shooting events allowed instructors to practice (or show-off) their skills, ranging from archery tic-tac-toe to pellet-gun bullseye. Several instructors displayed expert skills and offered tips to the novices.

Saturday evening gave the Hunter Education staff an official opportunity to thank the folks that "do the work." Each Hunter Education Officer recognized one volunteer instructor and one Commission employee from their region of the state who had made significant contributions to the program during the preceeding year. One volunteer was chosen on a statewide basis for his work coordinating programs and instructors in his local area.

The instructors honored for their outstanding contributions were: Terry Neenan, Largo; Curtis McGahee, Jacksonville; Ernie Rivers, Pensacola; Ken Tyson, Okeechobee; and Guy W. Whitaker, Orlando.

As an example of Commission employee dedication to our wildlife resources, many employees volunteer their spare time to teach Hunter Education classes.

From this group, the following were honored for their outstanding contributions: Charlie Bishop, Palmdale; Michael Edwards, Yulee; Joe Johnston, Quincy; Curt Perry, Chattahoochee; Parrish Thompson, Pahokee; Henry W. Starling, St. Augustine; and Robert Baker, Lantana. The outstanding volunteer area coordinator for the state was Frank Woods from Orlando.

·Thank You·
·Merci·
·Gracias·
·Dankeschoen·

VOL·UN·TEERS

All of these individuals received a certificate of appreciation and a signed copy of a Wallace Hughes wildlife print.

Although not all volunteers were able to attend this meeting, the Hunter Education staff and the Commisssion wish to express our most heartfelt thanks for a job well done! It is through dedication such as you have shown that the future of sport hunting and wildlife will be secure.

If you are interested in becoming a Volunteer Certified Hunter Education Instructor, the following basic requirements must be met:

Completion of the Hunter Safety course.
Contact your regional Hunter Education Officer for an interview.
Complete the Instructor Training Workbook.
Assist in teaching two hunter safety classes.
Make application for certification as an instructor.
Attend an instructor orientation session.

We are especially in need of bilingual instructors and instructors with experience in dealing with handicapped individuals. For further information on joining this elite group, please contact your regional Hunter Education officer. ☐

Conservation Update

Compiled by John Waters Jr.

Sportsman Club Gives To Panther Research

Safari Club International and its Florida chapters have given $10,000 to the Florida Panther Research and Management Trust Fund for study of *feline panleukopenia* and other diseases that may be affecting panthers in Florida. The 1983 Legislature established the fund.

Panleukopenia is a virus and it is not presently known what total effect the disease has on panthers. Domestic cats can be easily and routinely vaccinated to prevent the disease, but this may or may not be practical for a wild, free-roaming population of panthers. More study is needed, and the contribution will help significantly.

Scientists have found that most adult Florida panthers they have examined have been exposed to or infected by the virus. Other wild species in Florida, including the bobcat, otter and raccoon, are also susceptible to panleukopenia.

Dr. Melody Roelke of the University of Florida's College of Veterinary Medicine in Gainesville was first to confirm panleukopenia in the endangered Florida panther.

Anyone interested in contributing to the trust fund may send donations to Florida Panther Research and Management Trust Fund, Division of Wildlife, Florida Game and Fresh Water Fish Commission, 620 South Meridian Street, Tallahassee, FL 32301. The funds will be used to help preserve panthers in Florida. ☐

Aged Florida Panther Dies From Fighting

On December 1, panther number 90, as he is known to scientists studying Florida panthers, was found dead in the Fakahatchee Strand in southwest Florida. The cause of death was officially determined to be from wounds caused by another animal—most likely a competing male panther. Biologist Walter McCown found number 90's remains after the radio collar number 90 was wearing signaled the cat had been in one place too long.

Panther adults will fight over territory and mating, as do many other wildlife species. Most often, these battles are ritualistic and usually do not lead to serious injury; however number 90 was old and past his prime. ☐

Circulation Manager Accepts a New Job

Circulation Manager Pamela D. Stephens has accepted a promotion to another state agency, and has resigned from FLORIDA WILDLIFE'S staff. She served with the Commission since February 1981, and was instrumental in converting our magazine subscription records to a computerized system for the first time.

The magazine staff will miss her very much, and wishes her the very best on her new career venture. Her efforts in keeping the magazine circulation working for everyone have been greatly appreciated.

—The Staff

Wildlife Photography Contest Closes June 28

FLORIDA WILDLIFE's 1985 wildlife photography contest is still in full swing, but the June 28 deadline for entering is not far away. Some photographers have already sent their entries, but a rush of entries is still expected. The magazine staff hopes to see yours. This year's contest has four categories: A—Birds; B—Mammals; C—Fish, amphibians, invertebrates and reptiles; and D—Hunting and fishing in Florida. Only Category D may show people. Official entry forms (or copies) are required but there is no entry fee. Write us for forms.

Winners may be recommended by the judges for publication in the magazine and, in this event, will be paid at usual rates.

All entries will be returned after the contest if a self-addressed return envelope is sent with the entries. ☐

Marine Researchers Find Jellyfish Nerves Send Two-way Signals

University of Florida marine laboratory scientist Michael Greenberg has reported the university's research laboratory (located next to Marineland, south of St. Augustine) has confirmed electrical signals travel two directions in many of the nerves of jellyfish.

It has previously been generally considered that nerve impulses travel in one direction from one end of a nerve cell to the other, where the cell then synapses (electrically stimulates) another cell in the same nerve fiber. ☐

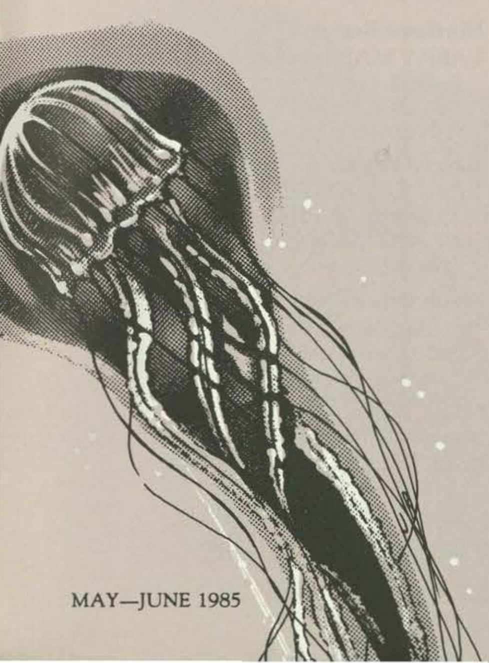
Florida Receives Federal Funds For Fish, Wildlife and Hunter Safety

During 1985, Florida will receive $729,253 in Dingell-Johnson federal monies for fish restoration programs. Another $1,502,760 will be received for wildlife restoration and hunter safety programs from Pittman-Robertson federal funds.

Named after the U.S. Congressional sponsors of the two funding laws, Dingell-Johnson monies come from a 10 percent excise tax on fishing rods, reels, creels and artificial lures. Distribution of these funds is based on the land and water area of each state, including coastal areas, plus the number of fishing licenses sold in the state.

Pittman-Robertson dollars come from an 11 percent excise tax on sporting arms and ammunition, a 10 percent tax on pistols and revolvers, and an 11 percent tax on certain archery equipment. Distribution of these monies for the wildlife restoration portion is based on land area and hunting license holders in the state. The share for the hunter safety program is based on population.

Of the total apportionment of Pittman-Robertson funds, $1,077,060 will go to restore the state's wildlife, and $425,700 is for hunter safety programs in Florida. ☐



Executive Director Receives Award

Executive Director Col. Robert M. Brantly has been presented Safari Club International's State Official Award for 1985. Brantly was given the international sportsmen's club recognition for "Outstanding leadership, tireless efforts, and lifelong commitment to the conservation and management of wildlife resources and sportsmen's rights." ☐

Florida's Governor Receives National Conservation Award

Governor Bob Graham has been awarded a 1984 National Conservation Award by the National Wildlife Federation (NWF), the nation's largest private conservation organization. Graham was presented the NWF's distinguished Government Award in Washington, DC on March 16.

Jay D. Hair, executive vice-president of NWF, said Graham's programs to save the Florida Everglades, reestablish the values of the Kissimmee River, restore Everglades National Park and his support for the endangered Florida panther were among their reasons for presenting the award. Other actions cited by Hair include Graham's Save Our Coasts and Save Our Rivers programs.

"Bob Graham has acted consistently on behalf of the environment on matters coming before him in cabinet meetings," Hair said. ☐

New Directors Named

In April, several promotions were made in the Commission's staff, to replace retiring employees and to improve the ability of the agency to meet the changing needs of the public.

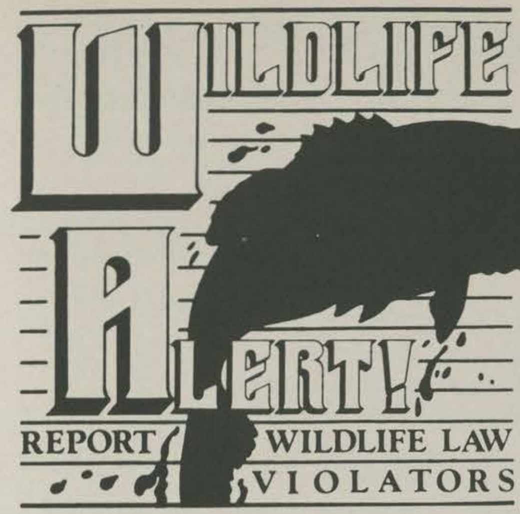
Dr. Allan L. Egbert was appointed as director of the Division of Wildlife to replace Fred W. Stanberry, who retired. Egbert was formerly assistant director of the division. Frank Montalbano was promoted to be the new assistant director of the Division of Wildlife.

Dennis "Duke" Hammond was promoted to director of the Office of Informational Services to replace Kenneth L. Stivers, who was promoted to senior executive assistant.

Robert B. Butler was promoted to regional director of the Central Region to replace William H. "Bill" King, who retired. ☐

County Maps Are 30¢ Plus 2¢ Tax

When ordering county maps from the Department of Transportation, Map and Publications Sales, Mail Station 12, Room 27, 605 Suwannee Street, Tallahassee, FL 32301, don't forget to add 2 cents per map for sales tax to the 30 cents cost each. The black and white maps measure 18 x 28 inches in size, show principal roads, waterways and other points of interest. They are popular with many boaters, canoeists, hunters and anglers. Most counties are contained on one sheet but Brevard, Collier, Dade, Hendry, Highlands, Hillsborough, Lake, Levy, Marion, Osceola, Palm Beach, Polk and Volusia counties have two sheets. Only Monroe County has three sheets. ☐



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39-3

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39-3

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Floridana

Daniel Boone was a man who couldn't stay put. He loved to roam the woods and he hunted for months at a time away from his cabin home in the wild country on the western Carolina frontier. At one time, he decided to give up this restless sort of life and settle down in town. The place he chose was Pensacola.

The year was 1765—11 years before the American Revolution. Florida belonged to England at the time. When the frontiersmen learned England was opening its new colony of Florida for settlement and was encouraging immigrants, Boone (as always) was stirred by the prospect of new land.

With two of his kinfolk and five other adventurers, the 29 year-old Boone took off on a trek to Florida. The eight of them rode horseback the whole 400 miles from St. Augustine to Pensacola, and they found the going rugged. They often suffered from hunger.

On one occasion, they were saved from near starvation by a band of friendly Seminole Indians. And, one member of Boone's party sometimes won at playing cards and he shared his winnings with his companions so they could eat.

Boone was disappointed in the trails, "miry" from Florida's frequent rains and amazed at the number and extent of the swamps they encountered. For a master hunter like him, perhaps his greatest frustration was finding less game in Florida than he had anticipated. He shunned alligators.

Pensacola, though, the crude capital of British West Florida (and a former military post under Spanish rule) appealed to him greatly, so, he bought a house and an 80- by 60-foot lot. But, when he returned home, his wife, Rebecca, refused to leave her family and friends. So, Boone abandoned the idea of settling in Florida and took his long rifle elsewhere. Later, he helped establish the first seat of government west of the Allegheny Mountains, in Kentucky.

-Marian B. Godown